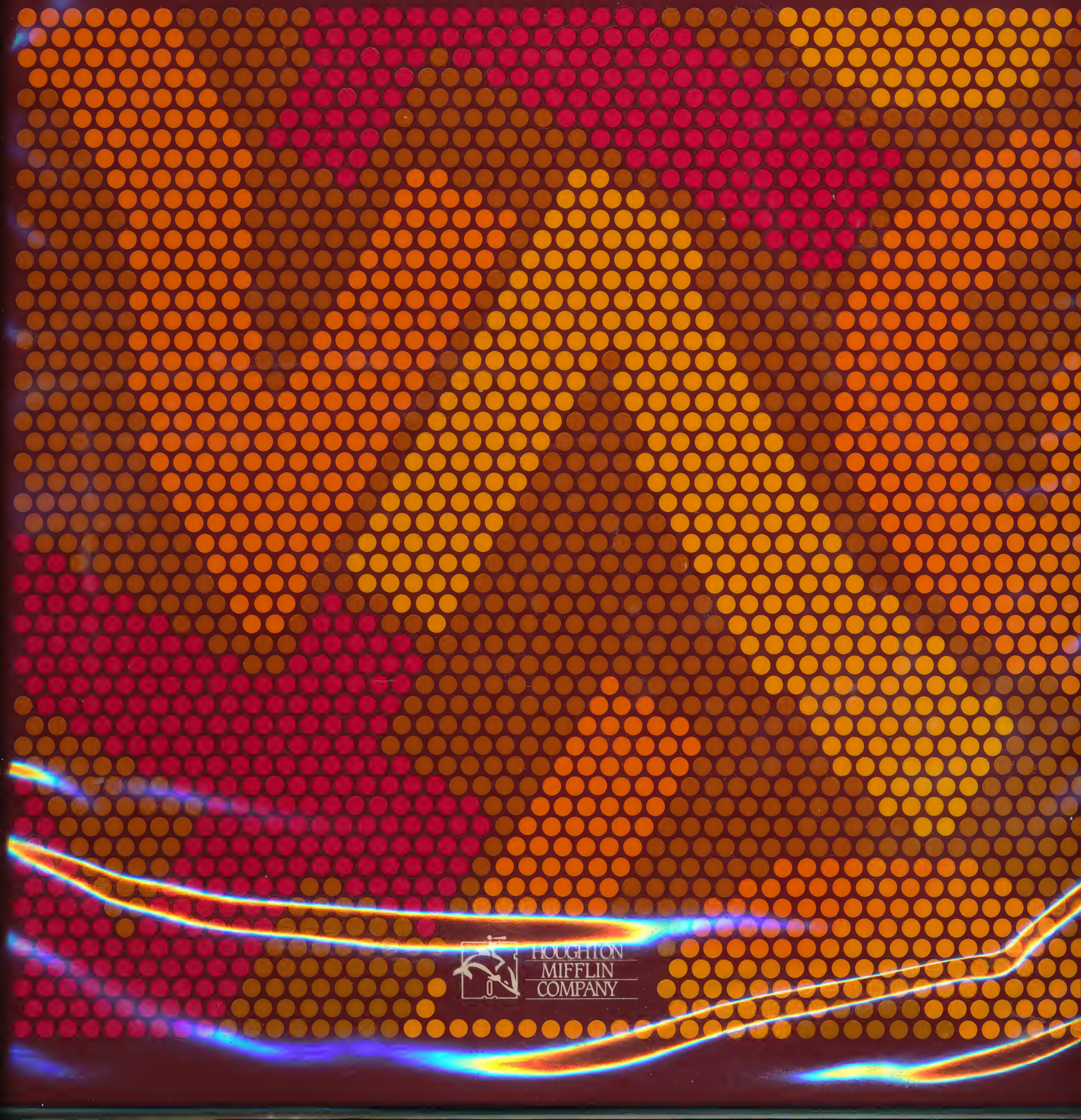
COMPUTATIONAL SKILLS PROGRAM

FRACTIONS

ADDITION AND SUBTRACTION



HOUGHTON MIFFLIN COMPANY

COMPUTATIONAL SKILLS PROGRAM

Fractions Addition and Subtraction

Houghton Mifflin Company
Educational Software Division

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9-91474

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FRACTIONS SUBTRACTION

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Teacher's Note

Four pages of material are associated with each skill. On the first page are the learning objectives for each exercise and a graphic of the teaching model that is used in the software. The other three pages contain the exercises. Each exercise page corresponds to a specific learning objective. These exercise sheets may be photocopied and assigned as seat work or homework.

Also included are review pages and a Placement Test. Review pages provide practice in a group of skills. The Placement Test can be used to determine at which skill the student should begin the *Computational Skills Program.* Directions for administering the test are provided, as are answers for all the problems.

A progress chart is provided for recording each student's scores. It is suggested that the teacher photocopy the chart and give one to each student. The student should record his or her scores and return the chart to the teacher as a written record of progress.

FRACTIONS ADDITION

LEARNING OBJECTIVES

SKILL 1

Add fractions with like denominators.

EXERCISE 1: Add fractions with like denominators that are less than 10. The answers are fractions.

EXERCISE 2: Add fractions with like denominators that are less than 10. The answers are whole numbers or mixed numbers.

EXERCISE 3: Add fractions with like denominators that are equal to or greater than 10. The answers are fractions, whole numbers, or mixed numbers.

TEACHING MODEL

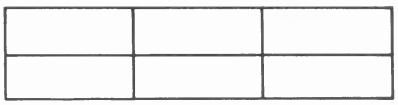
PROBLEM

$$\begin{array}{r} \frac{2}{6} \\ +\frac{1}{6} \\ \hline \end{array}$$

A model illustrates addition of fractions with common denominators.

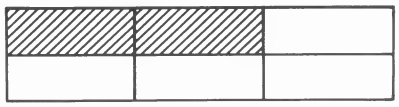
The rectangle has six parts.

$$\begin{array}{r} \frac{2}{\mathbf{6}} \\ +\frac{1}{\mathbf{6}} \\ \hline \end{array}$$



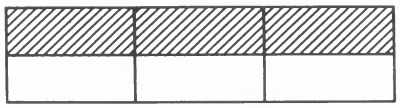
Two parts are shaded.

$$\begin{array}{r} \mathbf{2} \\ \hline 6 \\ +\frac{1}{6} \\ \hline \end{array}$$

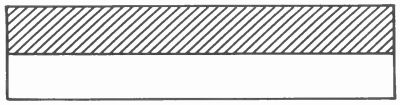


One additional part is then shaded.
The shaded part shows that $\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$.

$$\begin{array}{r} \frac{2}{6} \\ +\frac{\mathbf{1}}{6} \\ \hline \end{array}$$



The figure shows that, written in lowest terms, $\frac{3}{6} = \frac{1}{2}$.



A short cut is shown.
Use the common denominator.

$$\begin{array}{r} \frac{2}{\mathbf{6}} \\ +\frac{1}{\mathbf{6}} \\ \hline \frac{}{\mathbf{6}} \end{array}$$

Add the numerators.

$$\begin{array}{r} \frac{\mathbf{2}}{6} \\ +\frac{\mathbf{1}}{6} \\ \hline \frac{\mathbf{3}}{6} \end{array}$$

Write in lowest terms.

$$\begin{array}{r} \frac{2}{6} \\ +\frac{1}{6} \\ \hline \frac{\mathbf{3}}{\mathbf{6}} = \frac{1}{2} \end{array}$$

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SKILL 1 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{1}{6} + \frac{1}{6}$	2. $\frac{1}{3} + \frac{1}{3}$	3. $\frac{1}{8} + \frac{1}{8}$	4. $\frac{1}{9} + \frac{1}{9}$	5. $\frac{2}{6} + \frac{3}{6}$
6. $\frac{2}{8} + \frac{4}{8}$	7. $\frac{2}{5} + \frac{1}{5}$	8. $\frac{3}{9} + \frac{1}{9}$	9. $\frac{1}{8} + \frac{5}{8}$	10. $\frac{3}{7} + \frac{2}{7}$
11. $\frac{2}{5} + \frac{2}{5}$	12. $\frac{3}{8} + \frac{4}{8}$	13. $\frac{3}{5} + \frac{1}{5}$	14. $\frac{1}{9} + \frac{2}{9}$	15. $\frac{3}{8} + \frac{3}{8}$
16. $\frac{2}{9} + \frac{4}{9}$	17. $\frac{1}{6} + \frac{3}{6}$	18. $\frac{3}{6} + \frac{2}{6}$	19. $\frac{4}{7} + \frac{1}{7}$	20. $\frac{4}{9} + \frac{4}{9}$

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SKILL 1 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{3}{4} + \frac{1}{4}$	2. $\frac{2}{8} + \frac{6}{8}$	3. $\frac{1}{3} + \frac{2}{3}$	4. $\frac{4}{7} + \frac{3}{7}$	5. $\frac{2}{5} + \frac{4}{5}$
6. $\frac{6}{8} + \frac{5}{8}$	7. $\frac{3}{4} + \frac{2}{4}$	8. $\frac{5}{6} + \frac{3}{6}$	9. $\frac{4}{7} + \frac{6}{7}$	10. $\frac{8}{9} + \frac{4}{9}$
11. $\frac{3}{4} + \frac{3}{4}$	12. $\frac{4}{6} + \frac{5}{6}$	13. $\frac{7}{8} + \frac{5}{8}$	14. $\frac{6}{9} + \frac{7}{9}$	15. $\frac{3}{7} + \frac{5}{7}$
16. $\frac{4}{5} + \frac{3}{5}$	17. $\frac{4}{6} + \frac{5}{6}$	18. $\frac{5}{8} + \frac{5}{8}$	19. $\frac{7}{9} + \frac{8}{9}$	20. $\frac{5}{6} + \frac{5}{6}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{4}{15} + \frac{6}{15}$

2. $\frac{7}{18} + \frac{5}{18}$

3. $\frac{1}{12} + \frac{5}{12}$

4. $\frac{10}{16} + \frac{3}{16}$

5. $\frac{5}{18} + \frac{9}{18}$

6. $\frac{10}{15} + \frac{2}{15}$

7. $\frac{4}{10} + \frac{3}{10}$

8. $\frac{6}{16} + \frac{4}{16}$

9. $\frac{10}{18} + \frac{8}{18}$

10. $\frac{8}{15} + \frac{10}{15}$

11. $\frac{8}{10} + \frac{4}{10}$

12. $\frac{11}{16} + \frac{9}{16}$

13. $\frac{9}{15} + \frac{13}{15}$

14. $\frac{3}{12} + \frac{5}{12}$

15. $\frac{12}{16} + \frac{14}{16}$

16. $\frac{11}{12} + \frac{11}{12}$

17. $\frac{17}{20} + \frac{13}{20}$

18. $\frac{16}{24} + \frac{17}{24}$

19. $\frac{9}{16} + \frac{15}{16}$

20. $\frac{11}{12} + \frac{9}{12}$

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FRACTIONS ADDITION

LEARNING OBJECTIVES

SKILL 2

Add mixed numbers with like denominators (no renaming).

EXERCISE 1: Add mixed numbers whose whole numbers are 1-digit numbers and whose denominators are less than 10.

EXERCISE 2: Add mixed numbers whose whole numbers are 1- or 2-digit numbers and whose denominators are less than 10.

EXERCISE 3: Add mixed numbers whose whole numbers are 1- or 2-digit numbers and whose denominators are equal to or greater than 10.

TEACHING MODEL

PROBLEM $3\frac{1}{8}$
$+4\frac{5}{8}$

Add mixed numbers whose fractions have common denominators.

Add the fractions.

$$\begin{array}{r} 3\frac{1}{8} \\ +4\frac{5}{8} \\ \hline \frac{6}{8} \end{array}$$

Add the whole numbers.

$$\begin{array}{r} 3\frac{1}{8} \\ +4\frac{5}{8} \\ \hline 7\frac{6}{8} \end{array}$$

Write in lowest terms.

$$\begin{array}{r} 3\frac{1}{8} \\ +4\frac{5}{8} \\ \hline 7\frac{6}{8} = 7\frac{3}{4} \end{array}$$

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SKILL 2

EXERCISE 1

FRACTIONS ADDITION

Name _____ Date _____

Write each answer in lowest terms.

1. $6\frac{1}{4}$ $+3\frac{2}{4}$	**2.** $4\frac{6}{8}$ $+3\frac{1}{8}$	**3.** $2\frac{4}{7}$ $+3\frac{2}{7}$	**4.** $4\frac{3}{9}$ $+2\frac{4}{9}$	**5.** $6\frac{2}{6}$ $+9\frac{3}{6}$
6. $4\frac{2}{5}$ $+7\frac{2}{5}$	**7.** $3\frac{2}{9}$ $+8\frac{3}{9}$	**8.** $9\frac{2}{7}$ $+9\frac{3}{7}$	**9.** $4\frac{2}{8}$ $+7\frac{4}{8}$	**10.** $2\frac{1}{3}$ $+7\frac{1}{3}$
11. $6\frac{2}{7}$ $+4\frac{2}{7}$	**12.** $6\frac{6}{8}$ $+9\frac{1}{8}$	**13.** $4\frac{2}{7}$ $+7\frac{4}{7}$	**14.** $1\frac{1}{5}$ $+8\frac{3}{5}$	**15.** $4\frac{2}{8}$ $+2\frac{5}{8}$
16. $6\frac{1}{4}$ $+2\frac{2}{4}$	**17.** $9\frac{2}{5}$ $+7\frac{1}{5}$	**18.** $6\frac{4}{9}$ $+5\frac{2}{9}$	**19.** $4\frac{3}{6}$ $+8\frac{2}{6}$	**20.** $2\frac{3}{9}$ $+2\frac{1}{9}$

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SKILL 2 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $6\frac{1}{4}$ $+3\frac{2}{4}$	**2.** $4\frac{6}{8}$ $+3\frac{1}{8}$	**3.** $4\frac{3}{9}$ $+2\frac{4}{9}$	**4.** $6\frac{1}{6}$ $+9\frac{3}{6}$	**5.** $4\frac{2}{5}$ $+7\frac{2}{5}$
6. $3\frac{4}{9}$ $+8\frac{3}{9}$	**7.** $4\frac{3}{8}$ $+7\frac{3}{8}$	**8.** $12\frac{1}{3}$ $+\ 7\frac{1}{3}$	**9.** $6\frac{2}{7}$ $+14\frac{2}{7}$	**10.** $16\frac{6}{8}$ $+\ 9\frac{1}{8}$
11. $41\frac{1}{5}$ $+\ 8\frac{3}{5}$	**12.** $14\frac{2}{8}$ $+12\frac{5}{8}$	**13.** $26\frac{1}{4}$ $+32\frac{2}{4}$	**14.** $19\frac{2}{5}$ $+27\frac{1}{5}$	**15.** $7\frac{1}{4}$ $+2\frac{1}{4}$
16. $4\frac{3}{5}$ $+3\frac{1}{5}$	**17.** $9\frac{4}{8}$ $+8\frac{2}{8}$	**18.** $7\frac{2}{7}$ $+6\frac{4}{7}$	**19.** $12\frac{2}{5}$ $+\ 7\frac{2}{5}$	**20.** $8\frac{1}{6}$ $+14\frac{2}{6}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $7\frac{7}{18} + 1\frac{2}{18}$

2. $3\frac{1}{10} + 5\frac{7}{10}$

3. $6\frac{4}{12} + 2\frac{7}{12}$

4. $5\frac{9}{16} + 4\frac{3}{16}$

5. $8\frac{3}{10} + 4\frac{6}{10}$

6. $6\frac{4}{16} + 9\frac{5}{16}$

7. $8\frac{4}{12} + 7\frac{5}{12}$

8. $5\frac{4}{15} + 6\frac{6}{15}$

9. $12\frac{3}{12} + 8\frac{7}{12}$

10. $6\frac{5}{18} + 18\frac{7}{18}$

11. $28\frac{4}{15} + 7\frac{6}{15}$

12. $9\frac{9}{16} + 37\frac{1}{16}$

13. $18\frac{7}{18} + 16\frac{7}{18}$

14. $24\frac{9}{12} + 36\frac{2}{12}$

15. $24\frac{9}{16} + 27\frac{6}{16}$

16. $6\frac{2}{16} + 3\frac{13}{16}$

17. $7\frac{4}{15} + 4\frac{8}{15}$

18. $9\frac{6}{18} + 6\frac{8}{18}$

19. $8\frac{8}{24} + 5\frac{7}{24}$

20. $9\frac{7}{18} + 21\frac{8}{18}$

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FRACTIONS ADDITION

LEARNING OBJECTIVES

SKILL 3

Add mixed numbers with like denominators (with renaming).

EXERCISE 1: Add mixed numbers whose whole numbers are 1-digit numbers and whose denominators are less than 10.

EXERCISE 2: Add mixed numbers whose whole numbers are 1- or 2-digit numbers and whose denominators are less than 10.

EXERCISE 3: Add mixed numbers whose whole numbers are 1- or 2-digit numbers and whose denominators are equal to or greater than 10.

TEACHING MODEL

PROBLEM $5\frac{5}{6} + 2\frac{4}{6}$

Add mixed numbers whose sum of the fractions is an improper fraction.

Add the mixed numbers.

$$\begin{array}{r} 5\frac{5}{6} \\ +2\frac{4}{6} \\ \hline 7\frac{9}{6} \end{array}$$

Rename the sum.

$$\begin{array}{r} 5\frac{5}{6} \\ +2\frac{4}{6} \\ \hline 7\frac{9}{6} = 7 + 1\frac{3}{6} \end{array}$$

Write in lowest terms.

$$= 8\frac{3}{6} = 8\frac{1}{2}$$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $4\frac{6}{8} + 3\frac{2}{8}$

2. $2\frac{4}{5} + 7\frac{1}{5}$

3. $4\frac{5}{9} + 4\frac{4}{9}$

4. $8\frac{3}{4} + 1\frac{3}{4}$

5. $2\frac{7}{8} + 7\frac{3}{8}$

6. $3\frac{4}{5} + 4\frac{3}{5}$

7. $5\frac{8}{9} + 2\frac{4}{9}$

8. $8\frac{3}{6} + 9\frac{4}{6}$

9. $7\frac{7}{8} + 5\frac{5}{8}$

10. $6\frac{4}{7} + 8\frac{5}{7}$

11. $7\frac{6}{8} + 5\frac{4}{8}$

12. $7\frac{2}{5} + 6\frac{4}{5}$

13. $5\frac{6}{8} + 8\frac{6}{8}$

14. $9\frac{4}{6} + 8\frac{5}{6}$

15. $6\frac{5}{9} + 6\frac{7}{9}$

16. $7\frac{7}{8} + 4\frac{3}{8}$

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SKILL 3 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $6\frac{2}{4} + 12\frac{2}{4}$

2. $17\frac{4}{5} + 2\frac{3}{5}$

3. $6\frac{7}{8} + 12\frac{6}{8}$

4. $6\frac{4}{7} + 14\frac{6}{7}$

5. $18\frac{3}{8} + 7\frac{7}{8}$

6. $24\frac{7}{9} + 6\frac{5}{9}$

7. $9\frac{3}{5} + 18\frac{4}{5}$

8. $17\frac{5}{9} + 14\frac{8}{9}$

9. $24\frac{7}{8} + 16\frac{7}{8}$

10. $18\frac{4}{6} + 16\frac{5}{6}$

11. $16\frac{6}{8} + 19\frac{6}{8}$

12. $19\frac{4}{7} + 32\frac{5}{7}$

13. $19\frac{3}{7} + 21\frac{5}{7}$

14. $26\frac{3}{4} + 17\frac{2}{4}$

15. $15\frac{8}{9} + 27\frac{4}{9}$

16. $31\frac{6}{7} + 27\frac{6}{7}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $3\frac{7}{12} + 4\frac{5}{12}$

2. $4\frac{7}{10} + 6\frac{3}{10}$

3. $3\frac{10}{16} + 7\frac{6}{16}$

4. $4\frac{8}{20} + 4\frac{12}{20}$

5. $4\frac{12}{16} + 2\frac{8}{16}$

6. $7\frac{10}{18} + 8\frac{14}{18}$

7. $6\frac{8}{12} + 9\frac{10}{12}$

8. $4\frac{12}{15} + 7\frac{13}{15}$

9. $7\frac{11}{12} + 12\frac{6}{12}$

10. $24\frac{8}{20} + 8\frac{16}{20}$

11. $9\frac{9}{16} + 16\frac{11}{16}$

12. $17\frac{8}{10} + 8\frac{9}{10}$

13. $16\frac{9}{18} + 18\frac{13}{18}$

14. $24\frac{14}{16} + 16\frac{12}{16}$

15. $19\frac{14}{15} + 18\frac{6}{15}$

16. $16\frac{20}{24} + 29\frac{8}{24}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{5} \\ +\frac{1}{5} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{3}{8} \\ +\frac{4}{8} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{5}{8} \\ +\frac{1}{8} \\ \hline \end{array}$

4. $\begin{array}{r} \frac{7}{12} \\ +\frac{5}{12} \\ \hline \end{array}$

5. $\begin{array}{r} \frac{11}{16} \\ +\frac{7}{16} \\ \hline \end{array}$

SKILL 2

1. $\begin{array}{r} 7\frac{1}{8} \\ +2\frac{1}{8} \\ \hline \end{array}$

2. $\begin{array}{r} 3\frac{2}{9} \\ +7\frac{4}{9} \\ \hline \end{array}$

3. $\begin{array}{r} 10\frac{1}{8} \\ +14\frac{4}{8} \\ \hline \end{array}$

4. $\begin{array}{r} 4\frac{7}{16} \\ +9\frac{7}{16} \\ \hline \end{array}$

5. $\begin{array}{r} 9\frac{4}{15} \\ +9\frac{10}{15} \\ \hline \end{array}$

SKILL 3

1. $\begin{array}{r} 8\frac{3}{4} \\ +1\frac{2}{4} \\ \hline \end{array}$

2. $\begin{array}{r} 8\frac{7}{8} \\ +7\frac{7}{8} \\ \hline \end{array}$

3. $\begin{array}{r} 14\frac{7}{9} \\ +10\frac{8}{9} \\ \hline \end{array}$

4. $\begin{array}{r} 7\frac{8}{10} \\ +4\frac{8}{10} \\ \hline \end{array}$

5. $\begin{array}{r} 6\frac{1}{12} \\ +24\frac{17}{12} \\ \hline \end{array}$

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FRACTIONS ADDITION

LEARNING OBJECTIVES

SKILL 4

Add fractions with unlike denominators.

EXERCISE 1: Add fractions whose denominators are less than 10. The answers are fractions.

EXERCISE 2: Add fractions whose denominators are less than 10. The answers are mixed numbers.

EXERCISE 3: Add fractions whose denominators are less than 10 to fractions whose denominators are equal to or greater than 10. The answers are fractions, whole numbers, or mixed numbers.

TEACHING MODEL

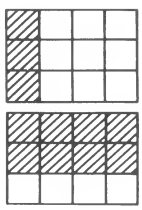
PROBLEM

$$\begin{array}{r} \frac{1}{4} \\ +\frac{2}{3} \\ \hline \end{array}$$

A model illustrates addition of fractions whose denominators are different.

Rectangles show that each fraction can be renamed as equivalent fractions with common denominators.

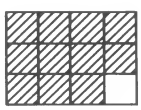
$$\begin{array}{rl} \frac{1}{4} = \frac{3}{12} & = \\ +\frac{2}{3} = \frac{8}{12} & = \end{array}$$



Three of the twelve parts are shaded. Eight more parts are shaded to show that

$$\frac{1}{4} + \frac{2}{3} = \frac{3}{12} + \frac{8}{12}$$

$$= \frac{11}{12}$$



A short cut is shown.

Find the LCD.

$$\begin{array}{rl} \frac{1}{4} = & \frac{}{12} \\ +\frac{2}{3} = & \frac{}{12} \end{array}$$

Rewrite the fractions.

$$\begin{array}{rl} \frac{1}{4} = & \frac{3}{12} \\ +\frac{2}{3} = & \frac{8}{12} \end{array}$$

Add the fractions.

$$\begin{array}{rl} \frac{1}{4} = & \frac{3}{12} \\ +\frac{2}{3} = & \frac{8}{12} \\ \hline & \frac{11}{12} \end{array}$$

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SKILL 4 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{1}{6} + \frac{2}{3}$ = ____

2. $\frac{1}{3} + \frac{3}{9}$ = ____

3. $\frac{3}{8} + \frac{2}{4}$ = ____

4. $\frac{2}{5} + \frac{2}{4}$ = ____

5. $\frac{2}{5} + \frac{3}{6}$ = ____

6. $\frac{2}{7} + \frac{1}{4}$ = ____

7. $\frac{3}{8} + \frac{2}{6}$ = ____

8. $\frac{2}{9} + \frac{1}{2}$ = ____

9. $\frac{1}{6} + \frac{3}{5}$ = ____

10. $\frac{2}{4} + \frac{2}{5}$ = ____

11. $\frac{3}{7} + \frac{1}{2}$ = ____

12. $\frac{2}{5} + \frac{1}{4}$ = ____

13. $\frac{2}{6} + \frac{3}{9}$ = ____

14. $\frac{3}{8} + \frac{2}{7}$ = ____

15. $\frac{1}{5} + \frac{3}{6}$ = ____

16. $\frac{3}{8} + \frac{1}{6}$ = ____

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{6}{8} + \frac{1}{2}$

2. $\frac{7}{9} + \frac{1}{3}$

3. $\frac{3}{4} + \frac{6}{8}$

4. $\frac{4}{6} + \frac{5}{9}$

5. $\frac{5}{7} + \frac{2}{3}$

6. $\frac{3}{4} + \frac{2}{6}$

7. $\frac{4}{5} + \frac{3}{4}$

8. $\frac{4}{7} + \frac{3}{5}$

9. $\frac{6}{8} + \frac{4}{5}$

10. $\frac{5}{9} + \frac{4}{6}$

11. $\frac{4}{5} + \frac{6}{8}$

12. $\frac{6}{8} + \frac{2}{3}$

13. $\frac{2}{5} + \frac{3}{4}$

14. $\frac{5}{8} + \frac{2}{3}$

15. $\frac{4}{9} + \frac{3}{5}$

16. $\frac{3}{4} + \frac{4}{5}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{4}{12} + \frac{2}{6}$

2. $\frac{3}{8} + \frac{7}{16}$

3. $\frac{4}{9} + \frac{2}{18}$

4. $\frac{4}{15} + \frac{2}{3}$

5. $\frac{3}{9} + \frac{12}{18}$

6. $\frac{11}{15} + \frac{2}{3}$

7. $\frac{9}{10} + \frac{4}{5}$

8. $\frac{20}{25} + \frac{4}{5}$

9. $\frac{3}{6} + \frac{4}{15}$

10. $\frac{8}{10} + \frac{2}{3}$

11. $\frac{15}{24} + \frac{2}{8}$

12. $\frac{4}{5} + \frac{6}{10}$

13. $\frac{4}{8} + \frac{20}{32}$

14. $\frac{7}{20} + \frac{4}{5}$

15. $\frac{3}{5} + \frac{12}{15}$

16. $\frac{7}{24} + \frac{5}{6}$

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FRACTIONS ADDITION

LEARNING OBJECTIVES

SKILL 5

Add mixed numbers with unlike denominators.

EXERCISE 1: Add mixed numbers whose whole numbers are 1-digit numbers and whose denominators are less than 10.

EXERCISE 2: Add mixed numbers whose whole numbers are 1- or 2-digit numbers and whose denominators are less than 10.

EXERCISE 3: Add mixed numbers whose whole numbers are 1- or 2-digit numbers.

TEACHING MODEL

PROBLEM $4\frac{1}{2}$
$+5\frac{2}{3}$

Add mixed numbers whose denominators are different.

Find the Least Common Denominator (LCD).

$$4\tfrac{1}{2} = 4\tfrac{\ }{\mathbf{6}}$$
$$+5\tfrac{2}{\mathbf{3}} = 5\tfrac{\ }{\mathbf{6}}$$

Rewrite the fractions.

$$4\tfrac{\mathbf{1}}{\mathbf{2}} = 4\tfrac{\mathbf{3}}{\mathbf{6}}$$
$$+5\tfrac{\mathbf{2}}{\mathbf{3}} = 5\tfrac{\mathbf{4}}{\mathbf{6}}$$

Add the mixed numbers.

$$4\tfrac{1}{2} = 4\tfrac{3}{6}$$
$$+5\tfrac{2}{3} = 5\tfrac{4}{6}$$
$$9\tfrac{7}{6}$$

Rename the sum.

$$4\tfrac{1}{2} = 4\tfrac{3}{6}$$
$$+5\tfrac{2}{3} = 5\tfrac{4}{6}$$
$$9\tfrac{7}{6} = 9 + 1\tfrac{1}{6}$$
$$= 10\tfrac{1}{6}$$

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SKILL 5 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $3\frac{1}{9} + 1\frac{1}{3}$

2. $5\frac{2}{3} + 2\frac{1}{6}$

3. $8\frac{1}{2} + 7\frac{1}{4}$

4. $6\frac{1}{8} + 5\frac{1}{2}$

5. $2\frac{1}{3} + 4\frac{3}{6}$

6. $9\frac{1}{8} + 7\frac{3}{4}$

7. $2\frac{1}{9} + 5\frac{2}{3}$

8. $4\frac{2}{9} + 2\frac{1}{4}$

9. $3\frac{1}{2} + 6\frac{3}{7}$

10. $5\frac{2}{5} + 5\frac{1}{3}$

11. $6\frac{1}{4} + 7\frac{2}{6}$

12. $7\frac{3}{8} + 4\frac{1}{7}$

13. $8\frac{2}{6} + 6\frac{1}{3}$

14. $9\frac{1}{5} + 3\frac{2}{3}$

15. $7\frac{2}{3} + 8\frac{1}{7}$

16. $2\frac{4}{9} + 1\frac{1}{3}$

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SKILL 5

EXERCISE 2

FRACTIONS ADDITION

Name _____ Date _____

Write each answer in lowest terms.

1. $3\frac{1}{9} + 1\frac{1}{3}$

2. $6\frac{1}{4} + 7\frac{2}{6}$

3. $7\frac{3}{8} + 4\frac{1}{7}$

4. $8\frac{1}{6} + 6\frac{1}{3}$

5. $9\frac{5}{6} + 3\frac{4}{5}$

6. $7\frac{4}{5} + 8\frac{3}{4}$

7. $9\frac{3}{4} + 2\frac{4}{9}$

8. $24\frac{2}{5} + 6\frac{5}{7}$

9. $42\frac{1}{6} + 9\frac{5}{9}$

10. $37\frac{5}{6} + 8\frac{3}{4}$

11. $16\frac{3}{8} + 10\frac{2}{3}$

12. $12\frac{5}{7} + 24\frac{4}{5}$

13. $32\frac{5}{8} + 16\frac{4}{7}$

14. $14\frac{4}{5} + 23\frac{4}{9}$

15. $26\frac{5}{9} + 22\frac{3}{4}$

16. $16\frac{7}{8} + 10\frac{3}{5}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $2\frac{4}{5} + 6\frac{9}{10}$

2. $7\frac{9}{10} + 4\frac{1}{2}$

3. $6\frac{2}{3} + 9\frac{11}{18}$

4. $4\frac{9}{16} + 8\frac{6}{8}$

5. $16\frac{3}{8} + 17\frac{15}{16}$

6. $10\frac{8}{10} + 12\frac{1}{2}$

7. $29\frac{5}{8} + 10\frac{15}{16}$

8. $24\frac{7}{9} + 37\frac{15}{18}$

9. $10\frac{7}{12} + 13\frac{8}{9}$

10. $27\frac{11}{16} + 19\frac{3}{4}$

11. $18\frac{5}{6} + 24\frac{4}{15}$

12. $17\frac{5}{8} + 16\frac{7}{10}$

13. $25\frac{7}{12} + 19\frac{3}{8}$

14. $16\frac{14}{15} + 21\frac{15}{30}$

15. $10\frac{21}{32} + 31\frac{15}{16}$

16. $17\frac{11}{24} + 32\frac{11}{12}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

SKILL 4

1. $\begin{array}{r} \frac{1}{3} \\ +\frac{1}{5} \\ \hline \end{array}$
2. $\begin{array}{r} \frac{1}{3} \\ +\frac{2}{9} \\ \hline \end{array}$
3. $\begin{array}{r} \frac{2}{5} \\ +\frac{1}{3} \\ \hline \end{array}$
4. $\begin{array}{r} \frac{4}{9} \\ +\frac{3}{4} \\ \hline \end{array}$
5. $\begin{array}{r} \frac{4}{6} \\ +\frac{4}{5} \\ \hline \end{array}$
6. $\begin{array}{r} \frac{7}{9} \\ +\frac{4}{5} \\ \hline \end{array}$
7. $\begin{array}{r} \frac{6}{8} \\ +\frac{9}{16} \\ \hline \end{array}$
8. $\begin{array}{r} \frac{9}{10} \\ +\frac{4}{5} \\ \hline \end{array}$
9. $\begin{array}{r} \frac{14}{15} \\ +\frac{6}{10} \\ \hline \end{array}$
10. $\begin{array}{r} \frac{1}{6} \\ +\frac{1}{4} \\ \hline \end{array}$

SKILL 5

1. $\begin{array}{r} 6\frac{1}{5} \\ +\ 4\frac{1}{6} \\ \hline \end{array}$
2. $\begin{array}{r} 3\frac{3}{8} \\ +5\frac{1}{5} \\ \hline \end{array}$
3. $\begin{array}{r} 4\frac{2}{7} \\ +\ 8\frac{1}{2} \\ \hline \end{array}$
4. $\begin{array}{r} 4\frac{4}{9} \\ +19\frac{3}{4} \\ \hline \end{array}$
5. $\begin{array}{r} 12\frac{2}{3} \\ +\ 7\frac{5}{6} \\ \hline \end{array}$
6. $\begin{array}{r} 18\frac{5}{6} \\ +34\frac{6}{8} \\ \hline \end{array}$
7. $\begin{array}{r} 5\frac{9}{16} \\ +26\frac{3}{4} \\ \hline \end{array}$
8. $\begin{array}{r} 26\frac{11}{15} \\ +\ 8\frac{2}{3} \\ \hline \end{array}$
9. $\begin{array}{r} 20\frac{10}{11} \\ +16\frac{9}{22} \\ \hline \end{array}$
10. $\begin{array}{r} 13\frac{5}{6} \\ +12\frac{1}{4} \\ \hline \end{array}$

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FRACTIONS SUBTRACTION

LEARNING OBJECTIVES

SKILL 1

Subtract fractions with like denominators.

EXERCISE 1: Subtract fractions whose denominators are less than 10 and whose numerators are less than 10.

EXERCISE 2: Subtract fractions whose numerators are less than 10 from fractions whose denominators are equal to or greater than 10.

EXERCISE 3: Subtract fractions whose denominators are equal to or greater than 10 and whose numerators are equal to or greater than 10.

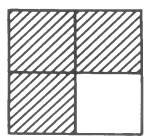
TEACHING MODEL

PROBLEM $\frac{3}{4} - \frac{1}{4}$

A model illustrates subtraction of fractions with common denominators.

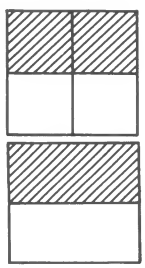
The rectangle has four parts. Three of the parts are shaded to represent $\frac{3}{4}$.

$$\frac{3}{4} - \frac{1}{4} = \frac{\quad}{4}$$



One of the shaded parts is removed to show that $\frac{2}{4}$ or $\frac{1}{2}$ of the region is left.

$$\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$$



A short cut is shown.

Use the common denominator.

$$\frac{3}{4} - \frac{1}{4} = \frac{\quad}{4}$$

Subtract the denominators.

$$\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$$

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SKILL 1 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{3}{4} - \frac{1}{4}$	2. $\frac{4}{5} - \frac{1}{5}$	3. $\frac{6}{9} - \frac{1}{9}$	4. $\frac{2}{3} - \frac{2}{3}$	5. $\frac{4}{6} - \frac{4}{6}$
6. $\frac{4}{7} - \frac{4}{7}$	7. $\frac{7}{9} - \frac{7}{9}$	8. $\frac{6}{8} - \frac{6}{8}$	9. $\frac{6}{7} - \frac{3}{7}$	10. $\frac{7}{8} - \frac{1}{8}$
11. $\frac{5}{6} - \frac{3}{6}$	12. $\frac{4}{8} - \frac{2}{8}$	13. $\frac{7}{9} - \frac{4}{9}$	14. $\frac{7}{8} - \frac{5}{8}$	15. $\frac{2}{5} - \frac{2}{5}$
16. $\frac{4}{6} - \frac{1}{6}$	17. $\frac{5}{8} - \frac{1}{8}$	18. $\frac{8}{9} - \frac{2}{9}$	19. $\frac{5}{6} - \frac{2}{6}$	20. $\frac{3}{4} - \frac{2}{4}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{7}{12} - \frac{1}{12}$	2. $\frac{7}{15} - \frac{7}{15}$	3. $\frac{8}{16} - \frac{3}{16}$	4. $\frac{4}{15} - \frac{1}{15}$	5. $\frac{7}{16} - \frac{5}{16}$
6. $\frac{7}{18} - \frac{4}{18}$	7. $\frac{8}{10} - \frac{3}{10}$	8. $\frac{13}{18} - \frac{3}{18}$	9. $\frac{9}{16} - \frac{5}{16}$	10. $\frac{7}{10} - \frac{3}{10}$
11. $\frac{7}{15} - \frac{2}{15}$	12. $\frac{7}{16} - \frac{3}{16}$	13. $\frac{8}{20} - \frac{3}{20}$	14. $\frac{15}{16} - \frac{6}{16}$	15. $\frac{10}{18} - \frac{7}{18}$
16. $\frac{10}{15} - \frac{7}{15}$	17. $\frac{12}{20} - \frac{7}{20}$	18. $\frac{14}{18} - \frac{5}{18}$	19. $\frac{16}{18} - \frac{7}{18}$	20. $\frac{13}{15} - \frac{9}{15}$

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SKILL 1 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{16}{18} - \frac{13}{18}$	**2.** $\frac{11}{12} - \frac{10}{12}$	**3.** $\frac{16}{20} - \frac{10}{20}$	**4.** $\frac{15}{16} - \frac{11}{16}$	**5.** $\frac{13}{14} - \frac{10}{14}$
6. $\frac{17}{20} - \frac{12}{20}$	**7.** $\frac{16}{24} - \frac{13}{24}$	**8.** $\frac{14}{15} - \frac{11}{15}$	**9.** $\frac{19}{24} - \frac{10}{24}$	**10.** $\frac{18}{25} - \frac{13}{25}$
11. $\frac{22}{25} - \frac{12}{25}$	**12.** $\frac{16}{18} - \frac{10}{18}$	**13.** $\frac{13}{15} - \frac{10}{15}$	**14.** $\frac{11}{12} - \frac{10}{12}$	**15.** $\frac{16}{20} - \frac{10}{20}$
16. $\frac{15}{16} - \frac{11}{16}$	**17.** $\frac{12}{14} - \frac{10}{14}$	**18.** $\frac{14}{20} - \frac{12}{20}$	**19.** $\frac{16}{24} - \frac{13}{24}$	**20.** $\frac{12}{13} - \frac{10}{13}$

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FRACTIONS SUBTRACTION

LEARNING OBJECTIVES

SKILL 2

Subtract mixed numbers with like denominators (no renaming).

EXERCISE 1: Subtract mixed numbers whose denominators are less than 10.

EXERCISE 2: Subtract mixed numbers whose numerators are less than 30 from mixed numbers whose denominators are equal to or greater than 10.

EXERCISE 3: Subtract mixed numbers whose numerators are equal to or greater than 10.

TEACHING MODEL

PROBLEM $4\frac{5}{6}$

$-2\frac{1}{6}$

Subtract mixed numbers whose fractions have common denominators.

Subtract the fractions.

$$\begin{array}{r} 4\frac{5}{6} \\ -2\frac{1}{6} \\ \hline \frac{4}{6} \end{array}$$

Subtract the whole numbers.

$$\begin{array}{r} 4\frac{5}{6} \\ -2\frac{1}{6} \\ \hline 2\frac{4}{6} \end{array}$$

Reduce the fraction to lowest terms.

$$\begin{array}{r} 4\frac{5}{6} \\ -2\frac{1}{6} \\ \hline 2\frac{4}{6} = 2\frac{2}{3} \end{array}$$

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SKILL 2 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{4}{7}$ $-1\frac{1}{7}$	**2.** $9\frac{6}{8}$ $-3\frac{1}{8}$	**3.** $8\frac{5}{6}$ $-3\frac{4}{6}$	**4.** $7\frac{3}{8}$ $-5\frac{3}{8}$	**5.** $6\frac{2}{3}$ $-6\frac{2}{3}$
6. $9\frac{4}{5}$ $-5\frac{2}{5}$	**7.** $4\frac{4}{9}$ $-3\frac{2}{9}$	**8.** $7\frac{7}{8}$ $-7\frac{3}{8}$	**9.** $3\frac{2}{4}$ $-3\frac{2}{4}$	**10.** $4\frac{6}{8}$ $-2\frac{1}{8}$
11. $9\frac{6}{9}$ $-7\frac{6}{9}$	**12.** $7\frac{4}{7}$ $-3\frac{2}{7}$	**13.** $7\frac{5}{6}$ $-5\frac{2}{6}$	**14.** $8\frac{7}{8}$ $-5\frac{3}{8}$	**15.** $10\frac{6}{7}$ $-7\frac{2}{7}$
16. $14\frac{3}{6}$ $-8\frac{1}{6}$	**17.** $24\frac{5}{8}$ $-6\frac{3}{8}$	**18.** $27\frac{4}{9}$ $-9\frac{1}{9}$	**19.** $24\frac{5}{9}$ $-21\frac{2}{9}$	**20.** $36\frac{5}{6}$ $-27\frac{2}{6}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{9}{16}$ $-1\frac{1}{16}$	**2.** $7\frac{7}{12}$ $-3\frac{1}{12}$	**3.** $8\frac{4}{18}$ $-4\frac{1}{18}$	**4.** $9\frac{8}{15}$ $-6\frac{5}{15}$	**5.** $5\frac{9}{18}$ $-2\frac{4}{18}$
6. $6\frac{7}{10}$ $-6\frac{5}{10}$	**7.** $7\frac{9}{16}$ $-6\frac{1}{16}$	**8.** $8\frac{7}{10}$ $-3\frac{2}{10}$	**9.** $8\frac{11}{16}$ $-8\frac{6}{16}$	**10.** $5\frac{12}{14}$ $-3\frac{5}{14}$
11. $6\frac{13}{15}$ $-2\frac{7}{15}$	**12.** $7\frac{13}{18}$ $-5\frac{4}{18}$	**13.** $18\frac{17}{18}$ $-3\frac{7}{18}$	**14.** $16\frac{12}{15}$ $-2\frac{2}{15}$	**15.** $17\frac{19}{20}$ $-5\frac{7}{20}$
16. $29\frac{21}{24}$ $-4\frac{7}{24}$	**17.** $17\frac{15}{16}$ $-16\frac{9}{16}$	**18.** $16\frac{13}{18}$ $-12\frac{6}{18}$	**19.** $21\frac{19}{24}$ $-14\frac{3}{24}$	**20.** $24\frac{13}{15}$ $-17\frac{9}{15}$

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SKILL 2 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8\frac{15}{16}$ $-8\frac{14}{16}$	**2.** $4\frac{12}{14}$ $-3\frac{10}{14}$	**3.** $6\frac{13}{15}$ $-2\frac{12}{15}$	**4.** $7\frac{12}{18}$ $-5\frac{10}{18}$	**5.** $18\frac{16}{18}$ $-3\frac{11}{18}$
6. $16\frac{12}{15}$ $-2\frac{10}{15}$	**7.** $17\frac{16}{20}$ $-5\frac{14}{20}$	**8.** $29\frac{18}{24}$ $-4\frac{14}{24}$	**9.** $17\frac{14}{16}$ $-16\frac{12}{16}$	**10.** $16\frac{13}{18}$ $-12\frac{11}{18}$
11. $21\frac{18}{24}$ $-14\frac{15}{24}$	**12.** $24\frac{13}{15}$ $-17\frac{11}{15}$	**13.** $7\frac{12}{16}$ $-6\frac{11}{16}$	**14.** $14\frac{17}{20}$ $-8\frac{12}{20}$	**15.** $12\frac{13}{15}$ $-9\frac{10}{15}$
16. $24\frac{12}{24}$ $-17\frac{11}{24}$	**17.** $9\frac{14}{16}$ $-6\frac{11}{16}$	**18.** $7\frac{14}{15}$ $-3\frac{12}{15}$	**19.** $12\frac{16}{18}$ $-8\frac{14}{18}$	**20.** $21\frac{18}{24}$ $-16\frac{10}{24}$

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FRACTIONS SUBTRACTION

LEARNING OBJECTIVES

SKILL 3

Subtract fractions or mixed numbers from whole numbers (with renaming of the whole numbers).

EXERCISE 1: Subtract fractions from whole numbers.

EXERCISE 2: Subtract mixed numbers whose denominators are less than 10 from whole numbers.

EXERCISE 3: Subtract mixed numbers whose denominators are equal to or greater than 10 from whole numbers.

TEACHING MODEL

PROBLEM $8 - 2\frac{1}{4}$

Subtract a mixed number from a whole number.

Rename the whole number.

$$8 = 7 + 1$$
$$= 7 + \frac{4}{4}$$

$$8 = 7\frac{4}{4}$$
$$-2\frac{1}{4} = 2\frac{1}{4}$$

Subtract the mixed numbers.

$$8 = 7\frac{4}{4}$$
$$-2\frac{1}{4} = 2\frac{1}{4}$$
$$5\frac{3}{4}$$

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SKILL 3 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $4 - \frac{2}{3}$ = ____

2. $3 - \frac{3}{4}$ = ____

3. $7 - \frac{4}{5}$ = ____

4. $9 - \frac{2}{7}$ = ____

5. $8 - \frac{6}{9}$ = ____

6. $4 - \frac{5}{5}$ = ____

7. $12 - \frac{5}{7}$ = ____

8. $16 - \frac{7}{8}$ = ____

9. $14 - \frac{4}{9}$ = ____

10. $18 - \frac{7}{8}$ = ____

11. $9 - \frac{6}{10}$ = ____

12. $3 - \frac{4}{16}$ = ____

13. $4 - \frac{7}{15}$ = ____

14. $7 - \frac{9}{18}$ = ____

15. $12 - \frac{11}{12}$ = ____

16. $16 - \frac{15}{20}$ = ____

17. $24 - \frac{20}{24}$ = ____

18. $18 - \frac{14}{16}$ = ____

19. $30 - \frac{10}{16}$ = ____

20. $28 - \frac{16}{18}$ = ____

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SKILL 3 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $7 - 2\frac{2}{3}$	**2.** $6 - 3\frac{4}{5}$	**3.** $4 - 1\frac{1}{2}$	**4.** $8 - 3\frac{2}{3}$	**5.** $6 - 5\frac{4}{5}$
6. $5 - 2\frac{6}{7}$	**7.** $9 - 3\frac{2}{3}$	**8.** $3 - 1\frac{3}{4}$	**9.** $19 - 6\frac{6}{7}$	**10.** $17 - 9\frac{2}{5}$
11. $24 - 6\frac{3}{4}$	**12.** $32 - 7\frac{6}{9}$	**13.** $8 - 4\frac{3}{4}$	**14.** $9 - 6\frac{4}{8}$	**15.** $16 - 3\frac{3}{6}$
16. $14 - 10\frac{2}{5}$	**17.** $40 - 30\frac{8}{9}$	**18.** $25 - 11\frac{6}{8}$	**19.** $18 - 12\frac{3}{5}$	**20.** $32 - 21\frac{5}{8}$

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SKILL 3 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8 - 2\frac{4}{12}$ = ____

2. $6 - 4\frac{8}{15}$ = ____

3. $4 - 1\frac{7}{16}$ = ____

4. $7 - 6\frac{9}{10}$ = ____

5. $18 - 3\frac{12}{16}$ = ____

6. $16 - 2\frac{15}{18}$ = ____

7. $17 - 9\frac{16}{20}$ = ____

8. $24 - 8\frac{10}{12}$ = ____

9. $14 - 10\frac{10}{16}$ = ____

10. $17 - 12\frac{12}{15}$ = ____

11. $24 - 17\frac{14}{18}$ = ____

12. $36 - 29\frac{21}{24}$ = ____

13. $4 - 3\frac{2}{10}$ = ____

14. $7 - 1\frac{4}{16}$ = ____

15. $24 - 2\frac{10}{15}$ = ____

16. $20 - 18\frac{12}{18}$ = ____

17. $52 - 9\frac{11}{12}$ = ____

18. $34 - 21\frac{10}{24}$ = ____

19. $29 - 23\frac{28}{30}$ = ____

20. $42 - 41\frac{19}{20}$ = ____

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FRACTIONS SUBTRACTION

LEARNING OBJECTIVES

SKILL 4

Subtract mixed numbers with like denominators (with renaming).

EXERCISE 1: Subtract mixed numbers whose denominators are less than 10.

EXERCISE 2: Subtract mixed numbers whose denominators are equal to or greater than 10.

EXERCISE 3: Subtract mixed numbers whose numerators and denominators are equal to or greater than 10.

TEACHING MODEL

PROBLEM $6\frac{1}{8}$

$-2\frac{5}{8}$

Subtract a mixed number from another mixed number that has a smaller fractional part.

Rename the mixed number.

$$6\frac{1}{8} = 5 + \frac{8}{8} + \frac{1}{8}$$

$$6\frac{1}{8} = 5\frac{9}{8}$$

$$-2\frac{5}{8} = 2\frac{5}{8}$$

Subtract.

$$6\frac{1}{8} = 5\frac{9}{8}$$

$$-2\frac{5}{8} = 2\frac{5}{8}$$

Reduce to lowest terms.

$$3\frac{4}{8} = 3\frac{1}{2}$$

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SKILL 4 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8\frac{1}{5}$ $-3\frac{4}{5}$	**2.** $6\frac{1}{8}$ $-1\frac{2}{8}$	**3.** $9\frac{1}{9}$ $-3\frac{6}{9}$	**4.** $5\frac{2}{5}$ $-2\frac{3}{5}$	**5.** $4\frac{1}{8}$ $-3\frac{6}{8}$
6. $10\frac{3}{8}$ $-6\frac{5}{8}$	**7.** $14\frac{4}{6}$ $-2\frac{5}{6}$	**8.** $27\frac{2}{7}$ $-3\frac{4}{7}$	**9.** $18\frac{3}{9}$ $-4\frac{7}{9}$	**10.** $14\frac{3}{5}$ $-8\frac{4}{5}$
11. $16\frac{6}{8}$ $-9\frac{7}{8}$	**12.** $14\frac{2}{5}$ $-10\frac{4}{5}$	**13.** $16\frac{4}{6}$ $-12\frac{5}{6}$	**14.** $24\frac{1}{3}$ $-17\frac{2}{3}$	**15.** $20\frac{3}{5}$ $-19\frac{4}{5}$
16. $16\frac{3}{8}$ $-14\frac{6}{8}$	**17.** $30\frac{5}{9}$ $-18\frac{7}{9}$	**18.** $8\frac{1}{5}$ $-3\frac{3}{5}$	**19.** $8\frac{3}{5}$ $-2\frac{4}{5}$	**20.** $5\frac{1}{6}$ $-1\frac{3}{6}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $17\frac{3}{18} - 8\frac{12}{18}$	**2.** $6\frac{1}{10} - 3\frac{8}{10}$	**3.** $4\frac{1}{14} - 2\frac{2}{14}$	**4.** $8\frac{1}{18} - 1\frac{6}{18}$	**5.** $9\frac{4}{15} - 5\frac{10}{15}$
6. $7\frac{6}{18} - 3\frac{12}{18}$	**7.** $8\frac{7}{16} - 4\frac{14}{16}$	**8.** $9\frac{7}{12} - 3\frac{11}{12}$	**9.** $14\frac{8}{12} - 7\frac{10}{12}$	**10.** $16\frac{9}{16} - 9\frac{13}{16}$
11. $24\frac{4}{18} - 8\frac{10}{18}$	**12.** $30\frac{6}{15} - 9\frac{13}{15}$	**13.** $7\frac{8}{10} - 4\frac{9}{10}$	**14.** $6\frac{4}{16} - 2\frac{6}{16}$	**15.** $8\frac{2}{18} - 3\frac{8}{18}$
16. $9\frac{6}{15} - 5\frac{7}{15}$	**17.** $16\frac{9}{16} - 9\frac{14}{16}$	**18.** $23\frac{7}{20} - 7\frac{15}{20}$	**19.** $28\frac{4}{18} - 19\frac{15}{18}$	**20.** $37\frac{7}{24} - 29\frac{19}{24}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{10}{18}$ $-4\frac{11}{18}$	**2.** $9\frac{12}{15}$ $-2\frac{14}{15}$	**3.** $8\frac{11}{16}$ $-3\frac{15}{16}$	**4.** $7\frac{15}{20}$ $-6\frac{18}{20}$	**5.** $24\frac{10}{14}$ $-8\frac{12}{14}$
6. $16\frac{13}{16}$ $-9\frac{14}{16}$	**7.** $25\frac{11}{18}$ $-19\frac{14}{18}$	**8.** $34\frac{14}{24}$ $-28\frac{20}{24}$	**9.** $28\frac{12}{18}$ $-19\frac{15}{18}$	**10.** $37\frac{16}{24}$ $-29\frac{19}{24}$
11. $20\frac{10}{20}$ $-16\frac{15}{20}$	**12.** $12\frac{10}{16}$ $-8\frac{14}{16}$	**13.** $21\frac{11}{24}$ $-20\frac{20}{24}$	**14.** $34\frac{15}{24}$ $-18\frac{21}{24}$	**15.** $17\frac{15}{20}$ $-16\frac{18}{20}$
16. $29\frac{10}{18}$ $-13\frac{12}{18}$	**17.** $16\frac{16}{18}$ $-9\frac{17}{18}$	**18.** $23\frac{11}{20}$ $-7\frac{16}{20}$	**19.** $26\frac{10}{30}$ $-19\frac{15}{30}$	**20.** $37\frac{10}{24}$ $-29\frac{19}{24}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

SKILL 1

1. $\frac{1}{5} - \frac{1}{5}$
2. $\frac{7}{8} - \frac{1}{8}$
3. $\frac{8}{15} - \frac{7}{15}$
4. $\frac{9}{10} - \frac{5}{10}$
5. $\frac{14}{18} - \frac{11}{18}$

SKILL 2

1. $4\frac{6}{9} - 2\frac{2}{9}$
2. $7\frac{5}{6} - 3\frac{2}{6}$
3. $14\frac{7}{8} - 7\frac{5}{8}$
4. $9\frac{8}{10} - 3\frac{1}{10}$
5. $4\frac{14}{18} - 2\frac{5}{18}$

SKILL 3

1. $7 - \frac{4}{8}$
2. $8 - 5\frac{3}{4}$
3. $18 - 2\frac{6}{9}$
4. $9 - \frac{8}{15}$
5. $6 - 3\frac{9}{16}$

SKILL 4

1. $8\frac{1}{7} - 3\frac{6}{7}$
2. $12\frac{3}{5} - 9\frac{4}{5}$
3. $12\frac{5}{12} - 6\frac{7}{12}$
4. $14\frac{4}{15} - 9\frac{11}{15}$
5. $24\frac{1}{18} - 18\frac{12}{18}$

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FRACTIONS SUBTRACTION

LEARNING OBJECTIVES

SKILL 5

Subtract fractions with unlike denominators.

EXERCISE 1: Subtract fractions whose denominators are less than 10 and whose numerators are less than 6.

EXERCISE 2: Subtract fractions whose denominators are less than 10.

EXERCISE 3: Subtract fractions with unlike denominators.

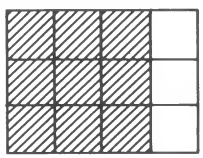
TEACHING MODEL

PROBLEM $\begin{array}{r} \frac{3}{4} \\ -\frac{1}{3} \\ \hline \end{array}$

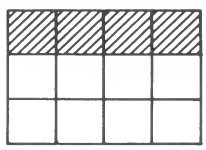
A model illustrates subtraction of fractions whose denominators are different.

Rectangles show each fraction can be renamed as equivalent fractions with common denominators.

$\frac{3}{4} = \frac{9}{12} =$



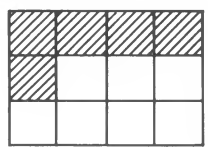
$\frac{1}{3} = \frac{4}{12} =$



Nine of the twelve parts are shaded. Four more parts are subtracted to show that

$\frac{3}{4} - \frac{1}{3} = \frac{9}{12} - \frac{4}{12}$

$= \frac{5}{12}$



A short cut is shown.

Find the LCD.

$\frac{3}{4} = \frac{\quad}{12}$

$-\frac{1}{3} = \frac{\quad}{12}$

Rewrite the fractions.

$\frac{3}{4} = \frac{9}{12}$

$-\frac{1}{3} = \frac{4}{12}$

Subtract the fractions.

$\frac{3}{4} = \frac{9}{12}$

$-\frac{1}{3} = \frac{4}{12}$

$\frac{5}{12}$

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SKILL 5 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{5}{8} - \frac{1}{4}$	**2.** $\frac{5}{9} - \frac{1}{3}$	**3.** $\frac{5}{6} - \frac{2}{3}$	**4.** $\frac{3}{4} - \frac{5}{8}$	**5.** $\frac{1}{2} - \frac{3}{8}$
6. $\frac{1}{3} - \frac{2}{9}$	**7.** $\frac{3}{4} - \frac{1}{8}$	**8.** $\frac{4}{9} - \frac{1}{3}$	**9.** $\frac{1}{2} - \frac{1}{6}$	**10.** $\frac{1}{4} - \frac{1}{8}$
11. $\frac{1}{3} - \frac{1}{8}$	**12.** $\frac{1}{6} - \frac{1}{7}$	**13.** $\frac{3}{4} - \frac{2}{5}$	**14.** $\frac{3}{8} - \frac{1}{6}$	**15.** $\frac{5}{9} - \frac{1}{4}$
16. $\frac{4}{5} - \frac{1}{6}$	**17.** $\frac{5}{7} - \frac{1}{3}$	**18.** $\frac{5}{6} - \frac{3}{4}$	**19.** $\frac{4}{5} - \frac{1}{4}$	**20.** $\frac{2}{3} - \frac{3}{7}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{2}{5} - \frac{2}{6}$	**2.** $\frac{4}{6} - \frac{3}{8}$	**3.** $\frac{3}{6} - \frac{4}{9}$	**4.** $\frac{7}{8} - \frac{2}{3}$	**5.** $\frac{6}{8} - \frac{2}{5}$
6. $\frac{3}{4} - \frac{2}{3}$	**7.** $\frac{6}{7} - \frac{2}{5}$	**8.** $\frac{5}{8} - \frac{1}{3}$	**9.** $\frac{5}{6} - \frac{3}{8}$	**10.** $\frac{4}{6} - \frac{2}{4}$
11. $\frac{5}{9} - \frac{2}{6}$	**12.** $\frac{1}{3} - \frac{3}{9}$	**13.** $\frac{2}{3} - \frac{2}{7}$	**14.** $\frac{1}{6} - \frac{1}{8}$	**15.** $\frac{7}{8} - \frac{5}{6}$
16. $\frac{7}{9} - \frac{2}{5}$	**17.** $\frac{7}{8} - \frac{3}{9}$	**18.** $\frac{6}{7} - \frac{3}{4}$	**19.** $\frac{4}{5} - \frac{2}{3}$	**20.** $\frac{2}{3} - \frac{3}{7}$

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FRACTIONS SUBTRACTION

Name _____ Date _____

Write each answer in lowest terms.

1. $\frac{3}{10} - \frac{1}{5}$
2. $\frac{5}{16} - \frac{1}{8}$
3. $\frac{7}{15} - \frac{1}{5}$
4. $\frac{8}{18} - \frac{1}{3}$
5. $\frac{1}{4} - \frac{1}{16}$
6. $\frac{1}{6} - \frac{1}{18}$
7. $\frac{1}{3} - \frac{1}{15}$
8. $\frac{1}{2} - \frac{1}{14}$
9. $\frac{11}{16} - \frac{3}{8}$
10. $\frac{13}{14} - \frac{2}{7}$
11. $\frac{14}{15} - \frac{3}{5}$
12. $\frac{15}{18} - \frac{7}{9}$
13. $\frac{11}{12} - \frac{4}{9}$
14. $\frac{13}{15} - \frac{1}{5}$
15. $\frac{9}{10} - \frac{3}{8}$
16. $\frac{15}{24} - \frac{1}{3}$
17. $\frac{5}{6} - \frac{1}{15}$
18. $\frac{7}{8} - \frac{5}{12}$
19. $\frac{3}{4} - \frac{2}{10}$
20. $\frac{7}{8} - \frac{4}{10}$

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FRACTIONS SUBTRACTION

LEARNING OBJECTIVES

SKILL 6

Subtract mixed numbers with unlike denominators.

EXERCISE 1: Subtract mixed numbers whose whole numbers are 1-digit numbers and whose denominators are less than 10.

EXERCISE 2: Subtract mixed numbers whose whole numbers are 1- or 2-digit numbers and whose denominators are less than 10.

EXERCISE 3: Subtract mixed numbers whose whole numbers are 1- or 2-digit numbers.

TEACHING MODEL

PROBLEM $8\frac{2}{3}$

$-3\frac{3}{4}$

Subtract mixed numbers whose fractions do not have common denominators.

Find the Least Common Denominator (LCD).

$$8\frac{2}{3} = 8\frac{\quad}{12}$$
$$-3\frac{3}{4} = 3\frac{\quad}{12}$$

Rewrite the fractions.

$$8\frac{2}{3} = 8\frac{8}{12}$$
$$-3\frac{3}{4} = 3\frac{9}{12}$$

Rename $8\frac{8}{12}$.

$$8\frac{2}{3} = 8\frac{8}{12} = 7\frac{20}{12}$$
$$-3\frac{3}{4} = 3\frac{9}{12} = 3\frac{9}{12}$$

Subtract.

$$8\frac{2}{3} = 7\frac{20}{12}$$
$$-3\frac{3}{4} = 3\frac{9}{12}$$
$$4\frac{11}{12}$$

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SKILL 6 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{1}{8} - 4\frac{2}{4}$

2. $3\frac{1}{4} - 1\frac{1}{2}$

3. $7\frac{1}{6} - 2\frac{2}{3}$

4. $8\frac{1}{4} - 5\frac{6}{8}$

5. $5\frac{1}{3} - 3\frac{6}{9}$

6. $9\frac{1}{2} - 5\frac{3}{4}$

7. $9\frac{2}{3} - 6\frac{5}{6}$

8. $4\frac{3}{4} - 3\frac{7}{8}$

9. $7\frac{2}{3} - 5\frac{8}{9}$

10. $6\frac{2}{3} - 2\frac{7}{9}$

11. $7\frac{1}{2} - 4\frac{4}{6}$

12. $5\frac{2}{4} - 1\frac{6}{8}$

13. $8\frac{3}{6} - 4\frac{2}{3}$

14. $8\frac{2}{9} - 6\frac{2}{3}$

15. $9\frac{1}{2} - 6\frac{3}{4}$

16. $5\frac{1}{4} - 2\frac{5}{6}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $7\frac{1}{4} - 2\frac{1}{3}$

2. $6\frac{3}{5} - 4\frac{2}{3}$

3. $8\frac{4}{6} - 3\frac{4}{5}$

4. $9\frac{2}{3} - 6\frac{6}{7}$

5. $4\frac{4}{5} - 3\frac{1}{2}$

6. $8\frac{1}{4} - 7\frac{2}{3}$

7. $9\frac{3}{8} - 1\frac{4}{5}$

8. $10\frac{1}{3} - 5\frac{3}{4}$

9. $12\frac{4}{9} - 6\frac{3}{5}$

10. $18\frac{1}{2} - 3\frac{3}{5}$

11. $19\frac{2}{5} - 13\frac{5}{7}$

12. $23\frac{1}{4} - 20\frac{2}{7}$

13. $29\frac{3}{4} - 25\frac{2}{3}$

14. $26\frac{1}{3} - 19\frac{2}{5}$

15. $28\frac{3}{8} - 27\frac{2}{3}$

16. $17\frac{1}{2} - 10\frac{3}{4}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8\frac{1}{3} - 2\frac{9}{15}$

2. $9\frac{1}{18} - 5\frac{5}{6}$

3. $3\frac{1}{10} - 1\frac{4}{5}$

4. $5\frac{1}{16} - 4\frac{7}{8}$

5. $17\frac{1}{3} - 2\frac{1}{2}$

6. $14\frac{3}{8} - 1\frac{1}{2}$

7. $18\frac{2}{5} - 5\frac{8}{15}$

8. $23\frac{1}{10} - 11\frac{4}{5}$

9. $19\frac{1}{2} - 14\frac{11}{12}$

10. $32\frac{7}{16} - 20\frac{3}{4}$

11. $26\frac{1}{4} - 14\frac{7}{8}$

12. $28\frac{7}{12} - 13\frac{5}{6}$

13. $13\frac{7}{15} - 11\frac{4}{5}$

14. $26\frac{4}{15} - 17\frac{5}{9}$

15. $32\frac{5}{9} - 18\frac{6}{8}$

16. $22\frac{3}{10} - 5\frac{11}{30}$

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FRACTIONS SUBTRACTION

Name _____ Date _____

Write each answer in lowest terms.

SKILL 5

1. $\frac{4}{8} - \frac{1}{2}$ = _____
2. $\frac{1}{4} - \frac{1}{5}$ = _____
3. $\frac{1}{6} - \frac{1}{8}$ = _____
4. $\frac{5}{8} - \frac{2}{5}$ = _____
5. $\frac{7}{9} - \frac{2}{3}$ = _____
6. $\frac{2}{3} - \frac{3}{7}$ = _____
7. $\frac{9}{10} - \frac{1}{2}$ = _____
8. $\frac{5}{6} - \frac{7}{15}$ = _____
9. $\frac{17}{20} - \frac{7}{15}$ = _____
10. $\frac{5}{7} - \frac{1}{3}$ = _____

SKILL 6

1. $6\frac{1}{3} - 2\frac{2}{9}$ = _____
2. $7\frac{1}{2} - 3\frac{3}{4}$ = _____
3. $8\frac{1}{2} - 2\frac{2}{3}$ = _____
4. $12\frac{3}{8} - 1\frac{1}{2}$ = _____
5. $18\frac{2}{5} - 12\frac{3}{4}$ = _____
6. $24\frac{7}{8} - 16\frac{4}{5}$ = _____
7. $19\frac{3}{10} - 3\frac{4}{5}$ = _____
8. $16\frac{1}{3} - 6\frac{7}{18}$ = _____
9. $24\frac{1}{15} - 19\frac{5}{6}$ = _____
10. $26\frac{1}{4} - 10\frac{1}{2}$ = _____

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PLACEMENT TEST

USING THE PLACEMENT TEST

TEST OBJECTIVES

The objective of the Placement Test is to assess a student's instructional needs on a skill-by-skill basis. The test consists of three problems for each skill in a strand. The problems represent the three levels of difficulty for each skill.

The test has two forms, A and B, both of which test the same skills but use different items. Form A can be administered to determine at which skill the student is to begin. Form B can be used as an assessment of mastery when all the skills have been studied. The forms can also be used interchangeably.

SCORING THE TEST

Answers are provided for both Form A and Form B. They appear on the reproduced test pages in this binder. To score a test, simply count the number of correct answers for each skill. Enter the numbers in the Scoring Section on the cover page of the student's test.

All three problems must be answered correctly to show mastery of a skill. The ''Number of Skills Mastered'' is the total of those skills for which the student scored a three. The following table shows the assessment of the scores for a skill.

Items Correct for a Skill	Assessment
3	Student shows mastery.
2, 1, 0	Student shows weakness and needs to start the *CSP* instructional process.

DIRECTIONS TO THE STUDENTS

The following directions are to be read aloud to the students. Do not hurry the directions; be sure the students fully understand what is expected of them. Allow opportunity for questions. Do not pass out the tests before you give the preliminary instructions.

PRELIMINARY INSTRUCTIONS TO BE READ ALOUD

In a moment, you will be given your test. The purpose of the test is to determine which skills you already know.

You will now receive your test. Do not open it until you are told to do so. (Wait until all students have received the test.)

Please print your name, the date, and your class in the spaces on the cover of the test. (Wait until all are finished.)

This is not a timed test. Work as many of the problems as you can. Do your work on the test, where possible. If you need more space, use a separate sheet of paper. Be sure to write your answers on the test sheet.

When you think that you have worked as many problems as possible, raise your hand.

Does anyone have a question? (Wait for a few moments.) We are ready to begin.

Open your test and start with the first problem.

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FRACTIONS ADDITION AND SUBTRACTION

To the Student:
Do not open this booklet until told to do so.
Carefully follow the teacher's directions.

Now fill in the information requested on the line below.

Last Name First Name Date Class

Scoring Section — For Teacher Use

FRACTIONS ADDITION	
SKILL NUMBER	NUMBER CORRECT
1	
2	
3	
4	
5	
NUMBER OF SKILLS MASTERED	

FRACTIONS SUBTRACTION	
SKILL NUMBER	NUMBER CORRECT
1	
2	
3	
4	
5	
6	
NUMBER OF SKILLS MASTERED	

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FRACTIONS ADDITION

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{7} \\ +\frac{1}{7} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{3}{6} \\ +\frac{5}{6} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{11}{15} \\ +\frac{7}{15} \\ \hline \end{array}$

SKILL 2

1. $\begin{array}{r} 2\frac{1}{7} \\ +2\frac{1}{7} \\ \hline \end{array}$

2. $\begin{array}{r} 14\frac{4}{9} \\ +\ 7\frac{3}{9} \\ \hline \end{array}$

3. $\begin{array}{r} 12\frac{5}{12} \\ +\ 6\frac{1}{12} \\ \hline \end{array}$

SKILL 3

1. $\begin{array}{r} 5\frac{3}{7} \\ +2\frac{4}{7} \\ \hline \end{array}$

2. $\begin{array}{r} 16\frac{3}{8} \\ +12\frac{7}{8} \\ \hline \end{array}$

3. $\begin{array}{r} 8\frac{5}{12} \\ +11\frac{11}{12} \\ \hline \end{array}$

SKILL 4

1. $\begin{array}{r} \frac{1}{3} \\ +\frac{1}{9} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{4}{7} \\ +\frac{5}{6} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{14}{15} \\ +\frac{3}{5} \\ \hline \end{array}$

SKILL 5

1. $\begin{array}{r} 3\frac{1}{4} \\ +5\frac{1}{6} \\ \hline \end{array}$

2. $\begin{array}{r} 16\frac{5}{8} \\ +14\frac{3}{6} \\ \hline \end{array}$

3. $\begin{array}{r} 19\frac{13}{16} \\ +\ 9\frac{3}{4} \\ \hline \end{array}$

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FRACTIONS SUBTRACTION

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{5} \\ -\frac{1}{5} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{12}{15} \\ -\frac{7}{15} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{14}{15} \\ -\frac{12}{15} \\ \hline \end{array}$

SKILL 2

1. $\begin{array}{r} 6\frac{7}{9} \\ -5\frac{2}{9} \\ \hline \end{array}$

2. $\begin{array}{r} 9\frac{5}{9} \\ -2\frac{2}{9} \\ \hline \end{array}$

3. $\begin{array}{r} 29\frac{13}{16} \\ -19\frac{11}{16} \\ \hline \end{array}$

SKILL 3

1. $\begin{array}{r} 7 \\ -\frac{6}{7} \\ \hline \end{array}$

2. $\begin{array}{r} 13 \\ -3\frac{2}{6} \\ \hline \end{array}$

3. $\begin{array}{r} 32 \\ -16\frac{14}{18} \\ \hline \end{array}$

SKILL 4

1. $\begin{array}{r} 9\frac{1}{5} \\ -6\frac{3}{5} \\ \hline \end{array}$

2. $\begin{array}{r} 37\frac{3}{20} \\ -7\frac{7}{20} \\ \hline \end{array}$

3. $\begin{array}{r} 10\frac{11}{20} \\ -9\frac{16}{20} \\ \hline \end{array}$

SKILL 5

1. $\begin{array}{r} \frac{5}{6} \\ -\frac{2}{3} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{6}{7} \\ -\frac{3}{5} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{11}{16} \\ -\frac{8}{32} \\ \hline \end{array}$

SKILL 6

1. $\begin{array}{r} 8\frac{1}{3} \\ -4\frac{5}{9} \\ \hline \end{array}$

2. $\begin{array}{r} 28\frac{4}{9} \\ -19\frac{5}{6} \\ \hline \end{array}$

3. $\begin{array}{r} 36\frac{5}{12} \\ -18\frac{5}{8} \\ \hline \end{array}$

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FRACTIONS ADDITION AND SUBTRACTION

To the Student:
Do not open this booklet until told to do so.
Carefully follow the teacher's directions.

Now fill in the information requested on the line below.

Last Name First Name Date Class

Scoring Section — For Teacher Use

FRACTIONS ADDITION	
SKILL NUMBER	NUMBER CORRECT
1	
2	
3	
4	
5	
NUMBER OF SKILLS MASTERED	

FRACTIONS SUBTRACTION	
SKILL NUMBER	NUMBER CORRECT
1	
2	
3	
4	
5	
6	
NUMBER OF SKILLS MASTERED	

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FRACTIONS ADDITION

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{8} \\ +\frac{1}{8} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{6}{7} \\ +\frac{5}{7} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{14}{16} \\ +\frac{6}{16} \\ \hline \end{array}$

SKILL 2

1. $\begin{array}{r} 1\frac{1}{4} \\ +2\frac{1}{4} \\ \hline \end{array}$

2. $\begin{array}{r} 3\frac{5}{9} \\ +12\frac{1}{9} \\ \hline \end{array}$

3. $\begin{array}{r} 20\frac{5}{18} \\ +\ 6\frac{3}{18} \\ \hline \end{array}$

SKILL 3

1. $\begin{array}{r} 4\frac{1}{8} \\ +2\frac{7}{8} \\ \hline \end{array}$

2. $\begin{array}{r} 18\frac{5}{9} \\ +14\frac{8}{9} \\ \hline \end{array}$

3. $\begin{array}{r} 6\frac{7}{16} \\ +14\frac{13}{16} \\ \hline \end{array}$

SKILL 4

1. $\begin{array}{r} \frac{1}{2} \\ +\frac{1}{8} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{3}{5} \\ +\frac{2}{3} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{11}{12} \\ +\frac{3}{4} \\ \hline \end{array}$

SKILL 5

1. $\begin{array}{r} 4\frac{1}{5} \\ +3\frac{1}{2} \\ \hline \end{array}$

2. $\begin{array}{r} 20\frac{5}{6} \\ +11\frac{3}{4} \\ \hline \end{array}$

3. $\begin{array}{r} 16\frac{12}{15} \\ +\ 8\frac{2}{5} \\ \hline \end{array}$

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FRACTIONS SUBTRACTION

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{7} \\ -\frac{1}{7} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{11}{12} \\ -\frac{7}{12} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{17}{20} \\ +\frac{13}{20} \\ \hline \end{array}$

SKILL 2

1. $\begin{array}{r} 8\frac{4}{5} \\ -3\frac{1}{5} \\ \hline \end{array}$

2. $\begin{array}{r} 10\frac{5}{6} \\ -\ 3\frac{2}{6} \\ \hline \end{array}$

3. $\begin{array}{r} 47\frac{11}{18} \\ -26\frac{5}{18} \\ \hline \end{array}$

SKILL 3

1. $\begin{array}{r} 8 \\ -\ \frac{5}{6} \\ \hline \end{array}$

2. $\begin{array}{r} 24 \\ -\ 7\frac{3}{9} \\ \hline \end{array}$

3. $\begin{array}{r} 31 \\ -14\frac{14}{28} \\ \hline \end{array}$

SKILL 4

1. $\begin{array}{r} 7\frac{1}{7} \\ -3\frac{2}{7} \\ \hline \end{array}$

2. $\begin{array}{r} 43\frac{9}{16} \\ -\ 6\frac{11}{16} \\ \hline \end{array}$

3. $\begin{array}{r} 10\frac{15}{20} \\ -\ 9\frac{18}{20} \\ \hline \end{array}$

SKILL 5

1. $\begin{array}{r} \frac{5}{8} \\ -\frac{1}{2} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{2}{3} \\ -\frac{3}{7} \\ \hline \end{array}$

3. $\begin{array}{r} \frac{5}{13} \\ -\frac{3}{26} \\ \hline \end{array}$

SKILL 6

1. $\begin{array}{r} 9\frac{1}{2} \\ -4\frac{4}{5} \\ \hline \end{array}$

2. $\begin{array}{r} 24\frac{2}{5} \\ -13\frac{3}{4} \\ \hline \end{array}$

3. $\begin{array}{r} 42\frac{4}{15} \\ -14\frac{2}{3} \\ \hline \end{array}$

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SKILL 1 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{1}{6} + \frac{1}{6} = \frac{1}{3}$	2. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$	3. $\frac{1}{8} + \frac{1}{8} = \frac{1}{4}$	4. $\frac{1}{9} + \frac{1}{9} = \frac{2}{9}$	5. $\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$
6. $\frac{2}{8} + \frac{4}{8} = \frac{3}{4}$	7. $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$	8. $\frac{3}{9} + \frac{1}{9} = \frac{4}{9}$	9. $\frac{1}{8} + \frac{5}{8} = \frac{3}{4}$	10. $\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$
11. $\frac{2}{5} + \frac{2}{5} = \frac{4}{5}$	12. $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$	13. $\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$	14. $\frac{1}{9} + \frac{2}{9} = \frac{1}{3}$	15. $\frac{3}{8} + \frac{3}{8} = \frac{3}{4}$
16. $\frac{2}{9} + \frac{4}{9} = \frac{2}{3}$	17. $\frac{1}{6} + \frac{3}{6} = \frac{2}{3}$	18. $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$	19. $\frac{4}{7} + \frac{1}{7} = \frac{5}{7}$	20. $\frac{4}{9} + \frac{4}{9} = \frac{8}{9}$

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SKILL 1 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{3}{4} + \frac{1}{4} = 1$	2. $\frac{2}{8} + \frac{6}{8} = 1$	3. $\frac{1}{3} + \frac{2}{3} = 1$	4. $\frac{4}{7} + \frac{3}{7} = 1$	5. $\frac{2}{5} + \frac{4}{5} = 1\frac{1}{5}$
6. $\frac{6}{8} + \frac{5}{8} = 1\frac{3}{8}$	7. $\frac{3}{4} + \frac{2}{4} = 1\frac{1}{4}$	8. $\frac{5}{6} + \frac{3}{6} = 1\frac{1}{3}$	9. $\frac{4}{7} + \frac{6}{7} = 1\frac{3}{7}$	10. $\frac{8}{9} + \frac{4}{9} = 1\frac{1}{3}$
11. $\frac{3}{4} + \frac{3}{4} = 1\frac{1}{2}$	12. $\frac{4}{6} + \frac{5}{6} = 1\frac{1}{2}$	13. $\frac{7}{8} + \frac{5}{8} = 1\frac{1}{2}$	14. $\frac{6}{9} + \frac{7}{9} = 1\frac{4}{9}$	15. $\frac{3}{7} + \frac{5}{7} = 1\frac{1}{7}$
16. $\frac{4}{5} + \frac{3}{5} = 1\frac{2}{5}$	17. $\frac{4}{6} + \frac{5}{6} = 1\frac{1}{2}$	18. $\frac{5}{8} + \frac{5}{8} = 1\frac{1}{4}$	19. $\frac{7}{9} + \frac{8}{9} = 1\frac{2}{3}$	20. $\frac{5}{6} + \frac{5}{6} = 1\frac{2}{3}$

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SKILL 1 EXERCISE 3

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{4}{15} + \frac{6}{15} = \frac{2}{3}$	2. $\frac{7}{18} + \frac{5}{18} = \frac{2}{3}$	3. $\frac{1}{12} + \frac{5}{12} = \frac{1}{2}$	4. $\frac{10}{16} + \frac{3}{16} = \frac{13}{16}$	5. $\frac{5}{18} + \frac{9}{18} = \frac{7}{9}$
6. $\frac{10}{15} + \frac{2}{15} = \frac{4}{5}$	7. $\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$	8. $\frac{6}{16} + \frac{4}{16} = \frac{5}{8}$	9. $\frac{10}{18} + \frac{8}{18} = 1$	10. $\frac{8}{15} + \frac{10}{15} = 1\frac{1}{5}$
11. $\frac{8}{10} + \frac{4}{10} = 1\frac{1}{5}$	12. $\frac{11}{16} + \frac{9}{16} = 1\frac{1}{4}$	13. $\frac{9}{15} + \frac{13}{15} = 1\frac{7}{15}$	14. $\frac{3}{12} + \frac{5}{12} = \frac{2}{3}$	15. $\frac{12}{16} + \frac{14}{16} = 1\frac{5}{8}$
16. $\frac{11}{12} + \frac{11}{12} = 1\frac{5}{6}$	17. $\frac{17}{20} + \frac{13}{20} = 1\frac{1}{2}$	18. $\frac{16}{24} + \frac{17}{24} = 1\frac{3}{8}$	19. $\frac{9}{16} + \frac{15}{16} = 1\frac{1}{2}$	20. $\frac{11}{12} + \frac{9}{12} = 1\frac{2}{3}$

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SKILL 2 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $6\frac{1}{4} + 3\frac{2}{4} = 9\frac{3}{4}$	2. $4\frac{6}{8} + 3\frac{1}{8} = 7\frac{7}{8}$	3. $2\frac{4}{7} + 3\frac{2}{7} = 5\frac{6}{7}$	4. $4\frac{3}{9} + 2\frac{4}{9} = 6\frac{7}{9}$	5. $6\frac{2}{6} + 9\frac{3}{6} = 15\frac{5}{6}$
6. $4\frac{2}{5} + 7\frac{2}{5} = 11\frac{4}{5}$	7. $3\frac{2}{9} + 8\frac{3}{9} = 11\frac{5}{9}$	8. $9\frac{2}{7} + 9\frac{3}{7} = 18\frac{5}{7}$	9. $4\frac{2}{8} + 7\frac{4}{8} = 11\frac{3}{4}$	10. $2\frac{1}{3} + 7\frac{1}{3} = 9\frac{2}{3}$
11. $6\frac{2}{7} + 4\frac{2}{7} = 10\frac{4}{7}$	12. $6\frac{6}{8} + 9\frac{1}{8} = 15\frac{7}{8}$	13. $4\frac{2}{7} + 7\frac{4}{7} = 11\frac{6}{7}$	14. $1\frac{1}{5} + 8\frac{3}{5} = 9\frac{4}{5}$	15. $4\frac{2}{8} + 2\frac{5}{8} = 6\frac{7}{8}$
16. $6\frac{1}{4} + 2\frac{2}{4} = 8\frac{3}{4}$	17. $9\frac{2}{5} + 7\frac{1}{5} = 16\frac{3}{5}$	18. $6\frac{4}{9} + 5\frac{2}{9} = 11\frac{2}{3}$	19. $4\frac{3}{6} + 8\frac{2}{6} = 12\frac{5}{6}$	20. $2\frac{3}{9} + 2\frac{1}{9} = 4\frac{4}{9}$

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SKILL 2 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $6\frac{1}{4} + 3\frac{2}{4} = 9\frac{3}{4}$	2. $4\frac{6}{8} + 3\frac{1}{8} = 7\frac{7}{8}$	3. $4\frac{3}{9} + 2\frac{4}{9} = 6\frac{7}{9}$	4. $6\frac{1}{6} + 9\frac{3}{6} = 15\frac{2}{3}$	5. $4\frac{2}{5} + 7\frac{2}{5} = 11\frac{4}{5}$
6. $3\frac{4}{9} + 8\frac{3}{9} = 11\frac{7}{9}$	7. $4\frac{3}{8} + 7\frac{3}{8} = 11\frac{3}{4}$	8. $12\frac{1}{3} + 7\frac{1}{3} = 19\frac{2}{3}$	9. $6\frac{2}{7} + 14\frac{2}{7} = 20\frac{4}{7}$	10. $16\frac{6}{8} + 9\frac{1}{8} = 25\frac{7}{8}$
11. $41\frac{1}{5} + 8\frac{3}{5} = 49\frac{4}{5}$	12. $14\frac{2}{8} + 12\frac{5}{8} = 26\frac{7}{8}$	13. $26\frac{1}{4} + 32\frac{2}{4} = 58\frac{3}{4}$	14. $19\frac{2}{5} + 27\frac{1}{5} = 46\frac{3}{5}$	15. $7\frac{1}{4} + 2\frac{1}{4} = 9\frac{1}{2}$
16. $4\frac{3}{5} + 3\frac{1}{5} = 7\frac{4}{5}$	17. $9\frac{4}{8} + 8\frac{2}{8} = 17\frac{3}{4}$	18. $7\frac{2}{7} + 6\frac{4}{7} = 13\frac{6}{7}$	19. $12\frac{2}{5} + 7\frac{2}{5} = 19\frac{4}{5}$	20. $8\frac{1}{6} + 14\frac{2}{6} = 22\frac{1}{2}$

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SKILL 2 EXERCISE 3

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $7\frac{7}{18} + 1\frac{2}{18} = 8\frac{1}{2}$	2. $3\frac{1}{10} + 5\frac{7}{10} = 8\frac{4}{5}$	3. $6\frac{4}{12} + 2\frac{7}{12} = 8\frac{11}{12}$	4. $5\frac{9}{16} + 4\frac{3}{16} = 9\frac{3}{4}$	5. $8\frac{3}{10} + 4\frac{6}{10} = 12\frac{9}{10}$
6. $6\frac{4}{16} + 9\frac{5}{16} = 15\frac{9}{16}$	7. $8\frac{4}{12} + 7\frac{5}{12} = 15\frac{3}{4}$	8. $5\frac{4}{15} + 6\frac{6}{15} = 11\frac{2}{3}$	9. $12\frac{3}{12} + 8\frac{7}{12} = 20\frac{5}{6}$	10. $6\frac{5}{18} + 18\frac{7}{18} = 24\frac{2}{3}$
11. $28\frac{4}{15} + 7\frac{6}{15} = 35\frac{2}{3}$	12. $9\frac{9}{16} + 37\frac{1}{16} = 46\frac{5}{8}$	13. $18\frac{7}{18} + 16\frac{7}{18} = 34\frac{7}{9}$	14. $24\frac{9}{12} + 36\frac{2}{12} = 60\frac{11}{12}$	15. $24\frac{9}{16} + 27\frac{6}{16} = 51\frac{15}{16}$
16. $6\frac{2}{16} + 3\frac{13}{16} = 9\frac{15}{16}$	17. $7\frac{4}{15} + 4\frac{8}{15} = 11\frac{4}{5}$	18. $9\frac{6}{18} + 6\frac{8}{18} = 15\frac{7}{9}$	19. $8\frac{8}{24} + 5\frac{7}{24} = 13\frac{5}{8}$	20. $9\frac{7}{18} + 21\frac{8}{18} = 30\frac{5}{6}$

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SKILL 3 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $4\frac{6}{8} + 3\frac{2}{8} = 8$
2. $2\frac{4}{5} + 7\frac{1}{5} = 10$
3. $4\frac{5}{9} + 4\frac{4}{9} = 9$
4. $8\frac{3}{4} + 1\frac{3}{4} = 10\frac{1}{2}$
5. $2\frac{7}{8} + 7\frac{3}{8} = 10\frac{1}{4}$
6. $3\frac{4}{5} + 4\frac{3}{5} = 8\frac{2}{5}$
7. $5\frac{8}{9} + 2\frac{4}{9} = 8\frac{1}{3}$
8. $8\frac{3}{6} + 9\frac{4}{6} = 18\frac{1}{6}$
9. $7\frac{7}{8} + 5\frac{5}{8} = 13\frac{1}{2}$
10. $6\frac{4}{7} + 8\frac{5}{7} = 15\frac{2}{7}$
11. $7\frac{6}{8} + 5\frac{4}{8} = 13\frac{1}{4}$
12. $7\frac{2}{5} + 6\frac{4}{5} = 14\frac{1}{5}$
13. $5\frac{6}{8} + 8\frac{6}{8} = 14\frac{1}{2}$
14. $9\frac{4}{6} + 8\frac{5}{6} = 18\frac{1}{2}$
15. $6\frac{5}{9} + 6\frac{7}{9} = 13\frac{1}{3}$
16. $7\frac{7}{8} + 4\frac{3}{8} = 12\frac{1}{4}$

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SKILL 3 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $6\frac{2}{4} + 12\frac{2}{4} = 19$
2. $17\frac{4}{5} + 2\frac{3}{5} = 20\frac{2}{5}$
3. $6\frac{7}{8} + 12\frac{6}{8} = 19\frac{5}{8}$
4. $6\frac{4}{7} + 14\frac{6}{7} = 21\frac{3}{7}$
5. $18\frac{3}{8} + 7\frac{7}{8} = 26\frac{1}{4}$
6. $24\frac{7}{9} + 6\frac{5}{9} = 31\frac{1}{3}$
7. $9\frac{3}{5} + 18\frac{4}{5} = 28\frac{2}{5}$
8. $17\frac{5}{9} + 14\frac{8}{9} = 32\frac{4}{9}$
9. $24\frac{7}{8} + 16\frac{7}{8} = 41\frac{3}{4}$
10. $18\frac{4}{6} + 16\frac{5}{6} = 35\frac{1}{2}$
11. $16\frac{6}{8} + 19\frac{6}{8} = 36\frac{1}{2}$
12. $19\frac{4}{7} + 32\frac{5}{7} = 52\frac{2}{7}$
13. $19\frac{3}{7} + 21\frac{5}{7} = 41\frac{1}{7}$
14. $26\frac{3}{4} + 17\frac{2}{4} = 44\frac{1}{4}$
15. $15\frac{8}{9} + 27\frac{4}{9} = 43\frac{1}{3}$
16. $31\frac{6}{7} + 27\frac{6}{7} = 59\frac{5}{7}$

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SKILL 3 EXERCISE 3

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $3\frac{7}{12} + 4\frac{5}{12} = 8$

2. $4\frac{7}{10} + 6\frac{3}{10} = 11$

3. $3\frac{10}{16} + 7\frac{6}{16} = 11$

4. $4\frac{8}{20} + 4\frac{12}{20} = 9$

5. $4\frac{12}{16} + 2\frac{8}{16} = 7\frac{1}{4}$

6. $7\frac{10}{18} + 8\frac{14}{18} = 16\frac{1}{3}$

7. $6\frac{8}{12} + 9\frac{10}{12} = 16\frac{1}{2}$

8. $4\frac{12}{15} + 7\frac{13}{15} = 12\frac{2}{3}$

9. $7\frac{11}{12} + 12\frac{6}{12} = 20\frac{5}{12}$

10. $24\frac{8}{20} + 8\frac{16}{20} = 33\frac{1}{5}$

11. $9\frac{9}{16} + 16\frac{11}{16} = 26\frac{1}{4}$

12. $17\frac{8}{10} + 8\frac{9}{10} = 26\frac{7}{10}$

13. $16\frac{9}{18} + 18\frac{13}{18} = 35\frac{2}{9}$

14. $24\frac{14}{16} + 16\frac{12}{16} = 41\frac{5}{8}$

15. $19\frac{14}{15} + 18\frac{6}{15} = 38\frac{1}{3}$

16. $16\frac{20}{24} + 29\frac{8}{24} = 46\frac{1}{6}$

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SKILLS 1–3 REVIEW 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

SKILL 1

1. $\frac{1}{5} + \frac{1}{5} = \frac{2}{5}$

2. $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$

3. $\frac{5}{8} + \frac{1}{8} = \frac{3}{4}$

4. $\frac{7}{12} + \frac{5}{12} = 1$

5. $\frac{11}{16} + \frac{7}{16} = 1\frac{1}{4}$

SKILL 2

1. $7\frac{1}{8} + 2\frac{1}{8} = 9\frac{1}{4}$

2. $3\frac{2}{9} + 7\frac{4}{9} = 10\frac{2}{3}$

3. $10\frac{1}{8} + 14\frac{4}{8} = 24\frac{5}{8}$

4. $4\frac{7}{16} + 9\frac{7}{16} = 13\frac{7}{8}$

5. $9\frac{4}{15} + 9\frac{10}{15} = 18\frac{14}{15}$

SKILL 3

1. $8\frac{3}{4} + 1\frac{2}{4} = 10\frac{1}{4}$

2. $8\frac{7}{8} + 7\frac{7}{8} = 16\frac{3}{4}$

3. $14\frac{7}{9} + 10\frac{8}{9} = 25\frac{2}{3}$

4. $7\frac{8}{10} + 4\frac{8}{10} = 12\frac{3}{5}$

5. $6\frac{1}{12} + 24\frac{17}{12} = 31\frac{1}{2}$

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SKILL 4 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{1}{6} + \frac{2}{3} = \frac{5}{6}$
2. $\frac{1}{3} + \frac{3}{9} = \frac{2}{3}$
3. $\frac{3}{8} + \frac{2}{4} = \frac{7}{8}$
4. $\frac{2}{5} + \frac{2}{4} = \frac{9}{10}$
5. $\frac{2}{5} + \frac{3}{6} = \frac{9}{10}$
6. $\frac{2}{7} + \frac{1}{4} = \frac{15}{28}$
7. $\frac{3}{8} + \frac{2}{6} = \frac{17}{24}$
8. $\frac{2}{9} + \frac{1}{2} = \frac{13}{18}$
9. $\frac{1}{6} + \frac{3}{5} = \frac{23}{30}$
10. $\frac{2}{4} + \frac{2}{5} = \frac{9}{10}$
11. $\frac{3}{7} + \frac{1}{2} = \frac{13}{14}$
12. $\frac{2}{5} + \frac{1}{4} = \frac{13}{20}$
13. $\frac{2}{6} + \frac{3}{9} = \frac{2}{3}$
14. $\frac{3}{8} + \frac{2}{7} = \frac{37}{56}$
15. $\frac{1}{5} + \frac{3}{6} = \frac{7}{10}$
16. $\frac{3}{8} + \frac{1}{6} = \frac{13}{24}$

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SKILL 4 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{6}{8} + \frac{1}{2} = 1\frac{1}{4}$
2. $\frac{7}{9} + \frac{1}{3} = 1\frac{1}{9}$
3. $\frac{3}{4} + \frac{6}{8} = 1\frac{1}{2}$
4. $\frac{4}{6} + \frac{5}{9} = 1\frac{2}{9}$
5. $\frac{5}{7} + \frac{2}{3} = 1\frac{8}{21}$
6. $\frac{3}{4} + \frac{2}{6} = 1\frac{1}{12}$
7. $\frac{4}{5} + \frac{3}{4} = 1\frac{11}{20}$
8. $\frac{4}{7} + \frac{3}{5} = 1\frac{6}{35}$
9. $\frac{6}{8} + \frac{4}{5} = 1\frac{11}{20}$
10. $\frac{5}{9} + \frac{4}{6} = 1\frac{2}{9}$
11. $\frac{4}{5} + \frac{6}{8} = 1\frac{11}{20}$
12. $\frac{6}{8} + \frac{2}{3} = 1\frac{5}{12}$
13. $\frac{2}{5} + \frac{3}{4} = 1\frac{3}{20}$
14. $\frac{5}{8} + \frac{2}{3} = 1\frac{7}{24}$
15. $\frac{4}{9} + \frac{3}{5} = 1\frac{2}{45}$
16. $\frac{3}{4} + \frac{4}{5} = 1\frac{11}{20}$

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SKILL 4 EXERCISE 3

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $\frac{4}{12} + \frac{2}{6} = \frac{2}{3}$

2. $\frac{3}{8} + \frac{7}{16} = \frac{13}{16}$

3. $\frac{4}{9} + \frac{2}{18} = \frac{5}{9}$

4. $\frac{4}{15} + \frac{2}{3} = \frac{14}{15}$

5. $\frac{3}{9} + \frac{12}{18} = 1$

6. $\frac{11}{15} + \frac{2}{3} = 1\frac{2}{5}$

7. $\frac{9}{10} + \frac{4}{5} = 1\frac{7}{10}$

8. $\frac{20}{25} + \frac{4}{5} = 1\frac{3}{5}$

9. $\frac{3}{6} + \frac{4}{15} = \frac{23}{30}$

10. $\frac{8}{10} + \frac{2}{3} = 1\frac{7}{15}$

11. $\frac{15}{24} + \frac{2}{8} = \frac{7}{8}$

12. $\frac{4}{5} + \frac{6}{10} = 1\frac{2}{5}$

13. $\frac{4}{8} + \frac{20}{32} = 1\frac{1}{8}$

14. $\frac{7}{20} + \frac{4}{5} = 1\frac{3}{20}$

15. $\frac{3}{5} + \frac{12}{15} = 1\frac{2}{5}$

16. $\frac{7}{24} + \frac{5}{6} = 1\frac{1}{8}$

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SKILL 5 EXERCISE 1

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $3\frac{1}{9} + 1\frac{1}{3} = 4\frac{4}{9}$

2. $5\frac{2}{3} + 2\frac{1}{6} = 7\frac{5}{6}$

3. $8\frac{1}{2} + 7\frac{1}{4} = 15\frac{3}{4}$

4. $6\frac{1}{8} + 5\frac{1}{2} = 11\frac{5}{8}$

5. $2\frac{1}{3} + 4\frac{3}{6} = 6\frac{5}{6}$

6. $9\frac{1}{8} + 7\frac{3}{4} = 16\frac{7}{8}$

7. $2\frac{1}{9} + 5\frac{2}{3} = 7\frac{7}{9}$

8. $4\frac{2}{9} + 2\frac{1}{4} = 6\frac{17}{36}$

9. $3\frac{1}{2} + 6\frac{3}{7} = 9\frac{13}{14}$

10. $5\frac{2}{5} + 5\frac{1}{3} = 10\frac{11}{15}$

11. $6\frac{1}{4} + 7\frac{2}{6} = 13\frac{7}{12}$

12. $7\frac{3}{8} + 4\frac{1}{7} = 11\frac{29}{56}$

13. $8\frac{2}{6} + 6\frac{1}{3} = 14\frac{2}{3}$

14. $9\frac{1}{5} + 3\frac{2}{3} = 12\frac{13}{15}$

15. $7\frac{2}{3} + 8\frac{1}{7} = 15\frac{17}{21}$

16. $2\frac{4}{9} + 1\frac{1}{3} = 3\frac{7}{9}$

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SKILL 5 EXERCISE 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $3\frac{1}{9} + 1\frac{1}{3} = 4\frac{4}{9}$
2. $6\frac{1}{4} + 7\frac{2}{6} = 13\frac{7}{12}$
3. $7\frac{3}{8} + 4\frac{1}{7} = 11\frac{29}{56}$
4. $8\frac{1}{6} + 6\frac{1}{3} = 14\frac{1}{2}$
5. $9\frac{5}{6} + 3\frac{4}{5} = 13\frac{19}{30}$
6. $7\frac{4}{5} + 8\frac{3}{4} = 16\frac{11}{20}$
7. $9\frac{3}{4} + 2\frac{4}{9} = 12\frac{7}{36}$
8. $24\frac{2}{5} + 6\frac{5}{7} = 31\frac{4}{35}$
9. $42\frac{1}{6} + 9\frac{5}{9} = 51\frac{13}{18}$
10. $37\frac{5}{6} + 8\frac{3}{4} = 46\frac{7}{12}$
11. $16\frac{3}{8} + 10\frac{2}{3} = 27\frac{1}{24}$
12. $12\frac{5}{7} + 24\frac{4}{5} = 37\frac{18}{35}$
13. $32\frac{5}{8} + 16\frac{4}{7} = 49\frac{11}{56}$
14. $14\frac{4}{5} + 23\frac{4}{9} = 38\frac{11}{45}$
15. $26\frac{5}{9} + 22\frac{3}{4} = 49\frac{11}{36}$
16. $16\frac{7}{8} + 10\frac{3}{5} = 27\frac{19}{40}$

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SKILL 5 EXERCISE 3

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

1. $2\frac{4}{5} + 6\frac{9}{10} = 9\frac{7}{10}$
2. $7\frac{9}{10} + 4\frac{1}{2} = 12\frac{2}{5}$
3. $6\frac{2}{3} + 9\frac{11}{18} = 16\frac{5}{18}$
4. $4\frac{9}{16} + 8\frac{6}{8} = 13\frac{5}{16}$
5. $16\frac{3}{8} + 17\frac{15}{16} = 34\frac{5}{16}$
6. $10\frac{8}{10} + 12\frac{1}{2} = 23\frac{3}{10}$
7. $29\frac{5}{8} + 10\frac{15}{16} = 40\frac{9}{16}$
8. $24\frac{7}{9} + 37\frac{15}{18} = 62\frac{11}{18}$
9. $10\frac{7}{12} + 13\frac{8}{9} = 24\frac{17}{36}$
10. $27\frac{11}{16} + 19\frac{3}{4} = 47\frac{7}{16}$
11. $18\frac{5}{6} + 24\frac{4}{15} = 43\frac{1}{10}$
12. $17\frac{5}{8} + 16\frac{7}{10} = 34\frac{13}{40}$
13. $25\frac{7}{12} + 19\frac{3}{8} = 44\frac{23}{24}$
14. $16\frac{14}{15} + 21\frac{15}{30} = 38\frac{13}{30}$
15. $10\frac{21}{32} + 31\frac{15}{16} = 41\frac{19}{32}$
16. $17\frac{11}{24} + 32\frac{11}{12} = 50\frac{3}{8}$

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SKILLS 4–5 REVIEW 2

FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

SKILL 4

1. $\frac{1}{3} + \frac{1}{5} = \frac{8}{15}$
2. $\frac{1}{3} + \frac{2}{9} = \frac{5}{9}$
3. $\frac{2}{5} + \frac{1}{3} = \frac{11}{15}$
4. $\frac{4}{9} + \frac{3}{4} = 1\frac{7}{36}$
5. $\frac{4}{6} + \frac{4}{5} = 1\frac{7}{15}$
6. $\frac{7}{9} + \frac{4}{5} = 1\frac{26}{45}$
7. $\frac{6}{8} + \frac{9}{16} = 1\frac{5}{16}$
8. $\frac{9}{10} + \frac{4}{5} = 1\frac{7}{10}$
9. $\frac{14}{15} + \frac{6}{10} = 1\frac{8}{15}$
10. $\frac{1}{6} + \frac{1}{4} = \frac{5}{12}$

SKILL 5

1. $6\frac{1}{5} + 4\frac{1}{6} = 10\frac{11}{30}$
2. $3\frac{3}{8} + 5\frac{1}{5} = 8\frac{23}{40}$
3. $4\frac{2}{7} + 8\frac{1}{2} = 12\frac{11}{14}$
4. $4\frac{4}{9} + 19\frac{3}{4} = 24\frac{7}{36}$
5. $12\frac{2}{3} + 7\frac{5}{6} = 20\frac{1}{2}$
6. $18\frac{5}{6} + 34\frac{6}{8} = 53\frac{7}{12}$
7. $5\frac{9}{16} + 26\frac{3}{4} = 32\frac{5}{16}$
8. $26\frac{11}{15} + 8\frac{2}{3} = 35\frac{2}{5}$
9. $20\frac{10}{11} + 16\frac{9}{22} = 37\frac{7}{22}$
10. $13\frac{5}{6} + 12\frac{1}{4} = 26\frac{1}{12}$

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SKILL 1 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{3}{4} - \frac{1}{4} = \frac{1}{2}$	2. $\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$	3. $\frac{6}{9} - \frac{1}{9} = \frac{5}{9}$	4. $\frac{2}{3} - \frac{2}{3} = 0$	5. $\frac{4}{6} - \frac{4}{6} = 0$
6. $\frac{4}{7} - \frac{4}{7} = 0$	7. $\frac{7}{9} - \frac{7}{9} = 0$	8. $\frac{6}{8} - \frac{6}{8} = 0$	9. $\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$	10. $\frac{7}{8} - \frac{1}{8} = \frac{3}{4}$
11. $\frac{5}{6} - \frac{3}{6} = \frac{1}{3}$	12. $\frac{4}{8} - \frac{2}{8} = \frac{1}{4}$	13. $\frac{7}{9} - \frac{4}{9} = \frac{1}{3}$	14. $\frac{7}{8} - \frac{5}{8} = \frac{1}{4}$	15. $\frac{2}{5} - \frac{2}{5} = 0$
16. $\frac{4}{6} - \frac{1}{6} = \frac{1}{2}$	17. $\frac{5}{8} - \frac{1}{8} = \frac{1}{2}$	18. $\frac{8}{9} - \frac{2}{9} = \frac{2}{3}$	19. $\frac{5}{6} - \frac{2}{6} = \frac{1}{2}$	20. $\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$

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SKILL 1 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{7}{12} - \frac{1}{12} = \frac{1}{2}$	2. $\frac{7}{15} - \frac{7}{15} = 0$	3. $\frac{8}{16} - \frac{3}{16} = \frac{5}{16}$	4. $\frac{4}{15} - \frac{1}{15} = \frac{1}{5}$	5. $\frac{7}{16} - \frac{5}{16} = \frac{1}{8}$
6. $\frac{7}{18} - \frac{4}{18} = \frac{1}{6}$	7. $\frac{8}{10} - \frac{3}{10} = \frac{1}{2}$	8. $\frac{13}{18} - \frac{3}{18} = \frac{5}{9}$	9. $\frac{9}{16} - \frac{5}{16} = \frac{1}{4}$	10. $\frac{7}{10} - \frac{3}{10} = \frac{2}{5}$
11. $\frac{7}{15} - \frac{2}{15} = \frac{1}{3}$	12. $\frac{7}{16} - \frac{3}{16} = \frac{1}{4}$	13. $\frac{8}{20} - \frac{3}{20} = \frac{1}{4}$	14. $\frac{15}{16} - \frac{6}{16} = \frac{9}{16}$	15. $\frac{10}{18} - \frac{7}{18} = \frac{1}{6}$
16. $\frac{10}{15} - \frac{7}{15} = \frac{1}{5}$	17. $\frac{12}{20} - \frac{7}{20} = \frac{1}{4}$	18. $\frac{14}{18} - \frac{5}{18} = \frac{1}{2}$	19. $\frac{16}{18} - \frac{7}{18} = \frac{1}{2}$	20. $\frac{13}{15} - \frac{9}{15} = \frac{4}{15}$

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SKILL 1 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{16}{18} - \frac{13}{18} = \frac{1}{6}$	2. $\frac{11}{12} - \frac{10}{12} = \frac{1}{12}$	3. $\frac{16}{20} - \frac{10}{20} = \frac{3}{10}$	4. $\frac{15}{16} - \frac{11}{16} = \frac{1}{4}$	5. $\frac{13}{14} - \frac{10}{14} = \frac{3}{14}$
6. $\frac{17}{20} - \frac{12}{20} = \frac{1}{4}$	7. $\frac{16}{24} - \frac{13}{24} = \frac{1}{8}$	8. $\frac{14}{15} - \frac{11}{15} = \frac{1}{5}$	9. $\frac{19}{24} - \frac{10}{24} = \frac{3}{8}$	10. $\frac{18}{25} - \frac{13}{25} = \frac{1}{5}$
11. $\frac{22}{25} - \frac{12}{25} = \frac{2}{5}$	12. $\frac{16}{18} - \frac{10}{18} = \frac{1}{3}$	13. $\frac{13}{15} - \frac{10}{15} = \frac{1}{5}$	14. $\frac{11}{12} - \frac{10}{12} = \frac{1}{12}$	15. $\frac{16}{20} - \frac{10}{20} = \frac{3}{10}$
16. $\frac{15}{16} - \frac{11}{16} = \frac{1}{4}$	17. $\frac{12}{14} - \frac{10}{14} = \frac{1}{7}$	18. $\frac{14}{20} - \frac{12}{20} = \frac{1}{10}$	19. $\frac{16}{24} - \frac{13}{24} = \frac{1}{8}$	20. $\frac{12}{13} - \frac{10}{13} = \frac{2}{13}$

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SKILL 2 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{4}{7} - 1\frac{1}{7} = 5\frac{3}{7}$	2. $9\frac{6}{8} - 3\frac{1}{8} = 6\frac{5}{8}$	3. $8\frac{5}{6} - 3\frac{4}{6} = 5\frac{1}{6}$	4. $7\frac{3}{8} - 5\frac{3}{8} = 2$	5. $6\frac{2}{3} - 6\frac{2}{3} = 0$
6. $9\frac{4}{5} - 5\frac{2}{5} = 4\frac{2}{5}$	7. $4\frac{4}{9} - 3\frac{2}{9} = 1\frac{2}{9}$	8. $7\frac{7}{8} - 7\frac{3}{8} = \frac{1}{2}$	9. $3\frac{2}{4} - 3\frac{2}{4} = 0$	10. $4\frac{6}{8} - 2\frac{1}{8} = 2\frac{5}{8}$
11. $9\frac{6}{9} - 7\frac{6}{9} = 2$	12. $7\frac{4}{7} - 3\frac{2}{7} = 4\frac{2}{7}$	13. $7\frac{5}{6} - 5\frac{2}{6} = 2\frac{1}{2}$	14. $8\frac{7}{8} - 5\frac{3}{8} = 3\frac{1}{2}$	15. $10\frac{6}{7} - 7\frac{2}{7} = 3\frac{4}{7}$
16. $14\frac{3}{6} - 8\frac{1}{6} = 6\frac{1}{3}$	17. $24\frac{5}{8} - 6\frac{3}{8} = 18\frac{1}{4}$	18. $27\frac{4}{9} - 9\frac{1}{9} = 18\frac{1}{3}$	19. $24\frac{5}{9} - 21\frac{2}{9} = 3\frac{1}{3}$	20. $36\frac{5}{6} - 27\frac{2}{6} = 9\frac{1}{2}$

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SKILL 2 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{9}{16} - 1\frac{1}{16} = 5\frac{1}{2}$	2. $7\frac{7}{12} - 3\frac{1}{12} = 4\frac{1}{2}$	3. $8\frac{4}{18} - 4\frac{1}{18} = 4\frac{1}{6}$	4. $9\frac{8}{15} - 6\frac{5}{15} = 3\frac{1}{5}$	5. $5\frac{9}{18} - 2\frac{4}{18} = 3\frac{5}{18}$
6. $6\frac{7}{10} - 6\frac{5}{10} = \frac{1}{5}$	7. $7\frac{9}{16} - 6\frac{1}{16} = 1\frac{1}{2}$	8. $8\frac{7}{10} - 3\frac{2}{10} = 5\frac{1}{2}$	9. $8\frac{11}{16} - 8\frac{6}{16} = \frac{5}{16}$	10. $5\frac{12}{14} - 3\frac{5}{14} = 2\frac{1}{2}$
11. $6\frac{13}{15} - 2\frac{7}{15} = 4\frac{2}{5}$	12. $7\frac{13}{18} - 5\frac{4}{18} = 2\frac{1}{2}$	13. $18\frac{17}{18} - 3\frac{7}{18} = 15\frac{5}{9}$	14. $16\frac{12}{15} - 2\frac{2}{15} = 14\frac{2}{3}$	15. $17\frac{19}{20} - 5\frac{7}{20} = 12\frac{3}{5}$
16. $29\frac{21}{24} - 4\frac{7}{24} = 25\frac{7}{12}$	17. $17\frac{15}{16} - 16\frac{9}{16} = 1\frac{3}{8}$	18. $16\frac{13}{18} - 12\frac{6}{18} = 4\frac{7}{18}$	19. $21\frac{19}{24} - 14\frac{3}{24} = 7\frac{2}{3}$	20. $24\frac{13}{15} - 17\frac{9}{15} = 7\frac{4}{15}$

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SKILL 2 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8\frac{15}{16} - 8\frac{14}{16} = \frac{1}{16}$	2. $4\frac{12}{14} - 3\frac{10}{14} = 1\frac{1}{7}$	3. $6\frac{13}{15} - 2\frac{12}{15} = 4\frac{1}{15}$	4. $7\frac{12}{18} - 5\frac{10}{18} = 2\frac{1}{9}$	5. $18\frac{16}{18} - 3\frac{11}{18} = 15\frac{5}{18}$
6. $16\frac{12}{15} - 2\frac{10}{15} = 14\frac{2}{15}$	7. $17\frac{16}{20} - 5\frac{14}{20} = 12\frac{1}{10}$	8. $29\frac{18}{24} - 4\frac{14}{24} = 25\frac{1}{6}$	9. $17\frac{14}{16} - 16\frac{12}{16} = 1\frac{1}{8}$	10. $16\frac{13}{18} - 12\frac{11}{18} = 4\frac{1}{9}$
11. $21\frac{18}{24} - 14\frac{15}{24} = 7\frac{1}{8}$	12. $24\frac{13}{15} - 17\frac{11}{15} = 7\frac{2}{15}$	13. $7\frac{12}{16} - 6\frac{11}{16} = 1\frac{1}{16}$	14. $14\frac{17}{20} - 8\frac{12}{20} = 6\frac{1}{4}$	15. $12\frac{13}{15} - 9\frac{10}{15} = 3\frac{1}{5}$
16. $24\frac{12}{24} - 17\frac{11}{24} = 7\frac{1}{24}$	17. $9\frac{14}{16} - 6\frac{11}{16} = 3\frac{3}{16}$	18. $7\frac{14}{15} - 3\frac{12}{15} = 4\frac{2}{15}$	19. $12\frac{16}{18} - 8\frac{14}{18} = 4\frac{1}{9}$	20. $21\frac{18}{24} - 16\frac{10}{24} = 5\frac{1}{3}$

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SKILL 3 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $4 - \frac{2}{3} = 3\frac{1}{3}$	**2.** $3 - \frac{3}{4} = 2\frac{1}{4}$	**3.** $7 - \frac{4}{5} = 6\frac{1}{5}$	**4.** $9 - \frac{2}{7} = 8\frac{5}{7}$	**5.** $8 - \frac{6}{9} = 7\frac{1}{3}$
6. $4 - \frac{5}{5} = 3$	**7.** $12 - \frac{5}{7} = 11\frac{2}{7}$	**8.** $16 - \frac{7}{8} = 15\frac{1}{8}$	**9.** $14 - \frac{4}{9} = 13\frac{5}{9}$	**10.** $18 - \frac{7}{8} = 17\frac{1}{8}$
11. $9 - \frac{6}{10} = 8\frac{2}{5}$	**12.** $3 - \frac{4}{16} = 2\frac{3}{4}$	**13.** $4 - \frac{7}{15} = 3\frac{8}{15}$	**14.** $7 - \frac{9}{18} = 6\frac{1}{2}$	**15.** $12 - \frac{11}{12} = 11\frac{1}{12}$
16. $16 - \frac{15}{20} = 15\frac{1}{4}$	**17.** $24 - \frac{20}{24} = 23\frac{1}{6}$	**18.** $18 - \frac{14}{16} = 17\frac{1}{8}$	**19.** $30 - \frac{10}{16} = 29\frac{3}{8}$	**20.** $28 - \frac{16}{18} = 27\frac{1}{9}$

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SKILL 3 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $7 - 2\frac{2}{3} = 4\frac{1}{3}$	**2.** $6 - 3\frac{4}{5} = 2\frac{1}{5}$	**3.** $4 - 1\frac{1}{2} = 2\frac{1}{2}$	**4.** $8 - 3\frac{2}{3} = 4\frac{1}{3}$	**5.** $6 - 5\frac{4}{5} = \frac{1}{5}$
6. $5 - 2\frac{6}{7} = 2\frac{1}{7}$	**7.** $9 - 3\frac{2}{3} = 5\frac{1}{3}$	**8.** $3 - 1\frac{3}{4} = 1\frac{1}{4}$	**9.** $19 - 6\frac{6}{7} = 12\frac{1}{7}$	**10.** $17 - 9\frac{2}{5} = 7\frac{2}{5}$
11. $24 - 6\frac{3}{4} = 17\frac{1}{4}$	**12.** $32 - 7\frac{6}{9} = 24\frac{1}{3}$	**13.** $8 - 4\frac{3}{4} = 3\frac{1}{4}$	**14.** $9 - 6\frac{4}{8} = 2\frac{1}{2}$	**15.** $16 - 3\frac{3}{6} = 12\frac{1}{2}$
16. $14 - 10\frac{2}{5} = 3\frac{3}{5}$	**17.** $40 - 30\frac{8}{9} = 9\frac{1}{9}$	**18.** $25 - 11\frac{6}{8} = 13\frac{1}{4}$	**19.** $18 - 12\frac{3}{5} = 5\frac{2}{5}$	**20.** $32 - 21\frac{5}{8} = 10\frac{3}{8}$

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SKILL 3 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8 - 2\frac{4}{12} = 5\frac{2}{3}$	2. $6 - 4\frac{8}{15} = 1\frac{7}{15}$	3. $4 - 1\frac{7}{16} = 2\frac{9}{16}$	4. $7 - 6\frac{9}{10} = \frac{1}{10}$	5. $18 - 3\frac{12}{16} = 14\frac{1}{4}$
6. $16 - 2\frac{15}{18} = 13\frac{1}{6}$	7. $17 - 9\frac{16}{20} = 7\frac{1}{5}$	8. $24 - 8\frac{10}{12} = 15\frac{1}{6}$	9. $14 - 10\frac{10}{16} = 3\frac{3}{8}$	10. $17 - 12\frac{12}{15} = 4\frac{1}{5}$
11. $24 - 17\frac{14}{18} = 6\frac{2}{9}$	12. $36 - 29\frac{21}{24} = 6\frac{1}{8}$	13. $4 - 3\frac{2}{10} = \frac{4}{5}$	14. $7 - 1\frac{4}{16} = 5\frac{3}{4}$	15. $24 - 2\frac{10}{15} = 21\frac{1}{3}$
16. $20 - 18\frac{12}{18} = 1\frac{1}{3}$	17. $52 - 9\frac{11}{12} = 42\frac{1}{12}$	18. $34 - 21\frac{10}{24} = 12\frac{7}{12}$	19. $29 - 23\frac{28}{30} = 5\frac{1}{15}$	20. $42 - 41\frac{19}{20} = \frac{1}{20}$

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SKILL 4 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8\frac{1}{5} - 3\frac{4}{5} = 4\frac{2}{5}$	2. $6\frac{1}{8} - 1\frac{2}{8} = 4\frac{7}{8}$	3. $9\frac{1}{9} - 3\frac{6}{9} = 5\frac{4}{9}$	4. $5\frac{2}{5} - 2\frac{3}{5} = 2\frac{4}{5}$	5. $4\frac{1}{8} - 3\frac{6}{8} = \frac{3}{8}$
6. $10\frac{3}{8} - 6\frac{5}{8} = 3\frac{3}{4}$	7. $14\frac{4}{6} - 2\frac{5}{6} = 11\frac{5}{6}$	8. $27\frac{2}{7} - 3\frac{4}{7} = 23\frac{5}{7}$	9. $18\frac{3}{9} - 4\frac{7}{9} = 13\frac{5}{9}$	10. $14\frac{3}{5} - 8\frac{4}{5} = 5\frac{4}{5}$
11. $16\frac{6}{8} - 9\frac{7}{8} = 6\frac{7}{8}$	12. $14\frac{2}{5} - 10\frac{4}{5} = 3\frac{3}{5}$	13. $16\frac{4}{6} - 12\frac{5}{6} = 3\frac{5}{6}$	14. $24\frac{1}{3} - 17\frac{2}{3} = 6\frac{2}{3}$	15. $20\frac{3}{5} - 19\frac{4}{5} = \frac{4}{5}$
16. $16\frac{3}{8} - 14\frac{6}{8} = 1\frac{5}{8}$	17. $30\frac{5}{9} - 18\frac{7}{9} = 11\frac{7}{9}$	18. $8\frac{1}{5} - 3\frac{3}{5} = 4\frac{3}{5}$	19. $8\frac{3}{5} - 2\frac{4}{5} = 5\frac{4}{5}$	20. $5\frac{1}{6} - 1\frac{3}{6} = 3\frac{2}{3}$

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SKILL 4 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $17\frac{3}{18} - 8\frac{12}{18} = 8\frac{1}{2}$	2. $6\frac{1}{10} - 3\frac{8}{10} = 2\frac{3}{10}$	3. $4\frac{1}{14} - 2\frac{2}{14} = 1\frac{13}{14}$	4. $8\frac{1}{18} - 1\frac{6}{18} = 6\frac{13}{18}$	5. $9\frac{4}{15} - 5\frac{10}{15} = 3\frac{3}{5}$
6. $7\frac{6}{18} - 3\frac{12}{18} = 3\frac{2}{3}$	7. $8\frac{7}{16} - 4\frac{14}{16} = 3\frac{9}{16}$	8. $9\frac{7}{12} - 3\frac{11}{12} = 5\frac{2}{3}$	9. $14\frac{8}{12} - 7\frac{10}{12} = 6\frac{5}{6}$	10. $16\frac{9}{16} - 9\frac{13}{16} = 6\frac{3}{4}$
11. $24\frac{4}{18} - 8\frac{10}{18} = 15\frac{2}{3}$	12. $30\frac{6}{15} - 9\frac{13}{15} = 20\frac{8}{15}$	13. $7\frac{8}{10} - 4\frac{9}{10} = 2\frac{9}{10}$	14. $6\frac{4}{16} - 2\frac{6}{16} = 3\frac{7}{8}$	15. $8\frac{2}{18} - 3\frac{8}{18} = 4\frac{2}{3}$
16. $9\frac{6}{15} - 5\frac{7}{15} = 3\frac{14}{15}$	17. $16\frac{9}{16} - 9\frac{14}{16} = 6\frac{11}{16}$	18. $23\frac{7}{20} - 7\frac{15}{20} = 15\frac{3}{5}$	19. $28\frac{4}{18} - 19\frac{15}{18} = 8\frac{7}{18}$	20. $37\frac{7}{24} - 29\frac{19}{24} = 7\frac{1}{2}$

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SKILL 4 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{10}{18} - 4\frac{11}{18} = 1\frac{17}{18}$	2. $9\frac{12}{15} - 2\frac{14}{15} = 6\frac{13}{15}$	3. $8\frac{11}{16} - 3\frac{15}{16} = 4\frac{3}{4}$	4. $7\frac{15}{20} - 6\frac{18}{20} = \frac{17}{20}$	5. $24\frac{10}{14} - 8\frac{12}{14} = 15\frac{6}{7}$
6. $16\frac{13}{16} - 9\frac{14}{16} = 6\frac{15}{16}$	7. $25\frac{11}{18} - 19\frac{14}{18} = 5\frac{5}{6}$	8. $34\frac{14}{24} - 28\frac{20}{24} = 5\frac{3}{4}$	9. $28\frac{12}{18} - 19\frac{15}{18} = 8\frac{5}{6}$	10. $37\frac{16}{24} - 29\frac{19}{24} = 7\frac{7}{8}$
11. $20\frac{10}{20} - 16\frac{15}{20} = 3\frac{3}{4}$	12. $12\frac{10}{16} - 8\frac{14}{16} = 3\frac{3}{4}$	13. $21\frac{11}{24} - 20\frac{20}{24} = \frac{5}{8}$	14. $34\frac{15}{24} - 18\frac{21}{24} = 15\frac{3}{4}$	15. $17\frac{15}{20} - 16\frac{18}{20} = \frac{17}{20}$
16. $29\frac{10}{18} - 13\frac{12}{18} = 15\frac{8}{9}$	17. $16\frac{16}{18} - 9\frac{17}{18} = 6\frac{17}{18}$	18. $23\frac{11}{20} - 7\frac{16}{20} = 15\frac{3}{4}$	19. $26\frac{10}{30} - 19\frac{15}{30} = 6\frac{5}{6}$	20. $37\frac{10}{24} - 29\frac{19}{24} = 7\frac{15}{24}$

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SKILLS 1–4 REVIEW 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

SKILL 1

1. $\frac{1}{5} - \frac{1}{5} = 0$
2. $\frac{7}{8} - \frac{1}{8} = \frac{3}{4}$
3. $\frac{8}{15} - \frac{7}{15} = \frac{1}{15}$
4. $\frac{9}{10} - \frac{5}{10} = \frac{2}{5}$
5. $\frac{14}{18} - \frac{11}{18} = \frac{1}{6}$

SKILL 2

1. $4\frac{6}{9} - 2\frac{2}{9} = 2\frac{4}{9}$
2. $7\frac{5}{6} - 3\frac{2}{6} = 4\frac{1}{2}$
3. $14\frac{7}{8} - 7\frac{5}{8} = 7\frac{1}{4}$
4. $9\frac{8}{10} - 3\frac{1}{10} = 6\frac{7}{10}$
5. $4\frac{14}{18} - 2\frac{5}{18} = 2\frac{1}{2}$

SKILL 3

1. $7 - \frac{4}{8} = 6\frac{1}{2}$
2. $8 - 5\frac{3}{4} = 2\frac{1}{4}$
3. $18 - 2\frac{6}{9} = 15\frac{1}{3}$
4. $9 - \frac{8}{15} = 8\frac{7}{15}$
5. $6 - 3\frac{9}{16} = 2\frac{7}{16}$

SKILL 4

1. $8\frac{1}{7} - 3\frac{6}{7} = 4\frac{2}{7}$
2. $12\frac{3}{5} - 9\frac{4}{5} = 2\frac{4}{5}$
3. $12\frac{5}{12} - 6\frac{7}{12} = 5\frac{5}{6}$
4. $14\frac{4}{15} - 9\frac{11}{15} = 4\frac{8}{15}$
5. $24\frac{1}{18} - 18\frac{12}{18} = 5\frac{7}{18}$

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SKILL 5 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{5}{8} - \frac{1}{4} = \frac{3}{8}$
2. $\frac{5}{9} - \frac{1}{3} = \frac{2}{9}$
3. $\frac{5}{6} - \frac{2}{3} = \frac{1}{6}$
4. $\frac{3}{4} - \frac{5}{8} = \frac{1}{8}$
5. $\frac{1}{2} - \frac{3}{8} = \frac{1}{8}$
6. $\frac{1}{3} - \frac{2}{9} = \frac{1}{9}$
7. $\frac{3}{4} - \frac{1}{8} = \frac{5}{8}$
8. $\frac{4}{9} - \frac{1}{3} = \frac{1}{9}$
9. $\frac{1}{2} - \frac{1}{6} = \frac{1}{3}$
10. $\frac{1}{4} - \frac{1}{8} = \frac{1}{8}$
11. $\frac{1}{3} - \frac{1}{8} = \frac{5}{24}$
12. $\frac{1}{6} - \frac{1}{7} = \frac{1}{42}$
13. $\frac{3}{4} - \frac{2}{5} = \frac{7}{20}$
14. $\frac{3}{8} - \frac{1}{6} = \frac{5}{24}$
15. $\frac{5}{9} - \frac{1}{4} = \frac{11}{36}$
16. $\frac{4}{5} - \frac{1}{6} = \frac{19}{30}$
17. $\frac{5}{7} - \frac{1}{3} = \frac{8}{21}$
18. $\frac{5}{6} - \frac{3}{4} = \frac{1}{12}$
19. $\frac{4}{5} - \frac{1}{4} = \frac{11}{20}$
20. $\frac{2}{3} - \frac{3}{7} = \frac{5}{21}$

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SKILL 5 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{2}{5} - \frac{2}{6} = \frac{1}{15}$	2. $\frac{4}{6} - \frac{3}{8} = \frac{7}{24}$	3. $\frac{3}{6} - \frac{4}{9} = \frac{1}{18}$	4. $\frac{7}{8} - \frac{2}{3} = \frac{5}{24}$	5. $\frac{6}{8} - \frac{2}{5} = \frac{7}{20}$
6. $\frac{3}{4} - \frac{2}{3} = \frac{1}{12}$	7. $\frac{6}{7} - \frac{2}{5} = \frac{16}{35}$	8. $\frac{5}{8} - \frac{1}{3} = \frac{7}{24}$	9. $\frac{5}{6} - \frac{3}{8} = \frac{11}{24}$	10. $\frac{4}{6} - \frac{2}{4} = \frac{1}{6}$
11. $\frac{5}{9} - \frac{2}{6} = \frac{2}{9}$	12. $\frac{1}{3} - \frac{3}{9} = 0$	13. $\frac{2}{3} - \frac{2}{7} = \frac{8}{21}$	14. $\frac{1}{6} - \frac{1}{8} = \frac{1}{24}$	15. $\frac{7}{8} - \frac{5}{6} = \frac{1}{24}$
16. $\frac{7}{9} - \frac{2}{5} = \frac{17}{45}$	17. $\frac{7}{8} - \frac{3}{9} = \frac{39}{72}$	18. $\frac{6}{7} - \frac{3}{4} = \frac{3}{28}$	19. $\frac{4}{5} - \frac{2}{3} = \frac{2}{15}$	20. $\frac{2}{3} - \frac{3}{7} = \frac{5}{21}$

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SKILL 5 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $\frac{3}{10} - \frac{1}{5} = \frac{1}{10}$	2. $\frac{5}{16} - \frac{1}{8} = \frac{3}{16}$	3. $\frac{7}{15} - \frac{1}{5} = \frac{4}{15}$	4. $\frac{8}{18} - \frac{1}{3} = \frac{1}{9}$	5. $\frac{1}{4} - \frac{1}{16} = \frac{3}{16}$
6. $\frac{1}{6} - \frac{1}{18} = \frac{1}{9}$	7. $\frac{1}{3} - \frac{1}{15} = \frac{4}{15}$	8. $\frac{1}{2} - \frac{1}{14} = \frac{3}{7}$	9. $\frac{11}{16} - \frac{3}{8} = \frac{5}{16}$	10. $\frac{13}{14} - \frac{2}{7} = \frac{9}{14}$
11. $\frac{14}{15} - \frac{3}{5} = \frac{1}{3}$	12. $\frac{15}{18} - \frac{7}{9} = \frac{1}{18}$	13. $\frac{11}{12} - \frac{4}{9} = \frac{17}{36}$	14. $\frac{13}{15} - \frac{1}{5} = \frac{2}{3}$	15. $\frac{9}{10} - \frac{3}{8} = \frac{21}{40}$
16. $\frac{15}{24} - \frac{1}{3} = \frac{7}{24}$	17. $\frac{5}{6} - \frac{1}{15} = \frac{23}{30}$	18. $\frac{7}{8} - \frac{5}{12} = \frac{11}{24}$	19. $\frac{3}{4} - \frac{2}{10} = \frac{11}{20}$	20. $\frac{7}{8} - \frac{4}{10} = \frac{19}{40}$

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SKILL 6 EXERCISE 1

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $6\frac{1}{8} - 4\frac{2}{4} = 1\frac{5}{8}$
2. $3\frac{1}{4} - 1\frac{1}{2} = 1\frac{3}{4}$
3. $7\frac{1}{6} - 2\frac{2}{3} = 4\frac{1}{2}$
4. $8\frac{1}{4} - 5\frac{6}{8} = 2\frac{1}{2}$
5. $5\frac{1}{3} - 3\frac{6}{9} = 1\frac{2}{3}$
6. $9\frac{1}{2} - 5\frac{3}{4} = 3\frac{3}{4}$
7. $9\frac{2}{3} - 6\frac{5}{6} = 2\frac{5}{6}$
8. $4\frac{3}{4} - 3\frac{7}{8} = \frac{7}{8}$
9. $7\frac{2}{3} - 5\frac{8}{9} = 1\frac{7}{9}$
10. $6\frac{2}{3} - 2\frac{7}{9} = 3\frac{8}{9}$
11. $7\frac{1}{2} - 4\frac{4}{6} = 2\frac{5}{6}$
12. $5\frac{2}{4} - 1\frac{6}{8} = 3\frac{3}{4}$
13. $8\frac{3}{6} - 4\frac{2}{3} = 3\frac{5}{6}$
14. $8\frac{2}{9} - 6\frac{2}{3} = 1\frac{5}{9}$
15. $9\frac{1}{2} - 6\frac{3}{4} = 2\frac{3}{4}$
16. $5\frac{1}{4} - 2\frac{5}{6} = 2\frac{5}{12}$

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SKILL 6 EXERCISE 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $7\frac{1}{4} - 2\frac{1}{3} = 4\frac{11}{12}$
2. $6\frac{3}{5} - 4\frac{2}{3} = 1\frac{14}{15}$
3. $8\frac{4}{6} - 3\frac{4}{5} = 4\frac{13}{15}$
4. $9\frac{2}{3} - 6\frac{6}{7} = 2\frac{17}{21}$
5. $4\frac{4}{5} - 3\frac{1}{2} = 1\frac{3}{10}$
6. $8\frac{1}{4} - 7\frac{2}{3} = \frac{7}{12}$
7. $9\frac{3}{8} - 1\frac{4}{5} = 7\frac{23}{40}$
8. $10\frac{1}{3} - 5\frac{3}{4} = 4\frac{7}{12}$
9. $12\frac{4}{9} - 6\frac{3}{5} = 5\frac{38}{45}$
10. $18\frac{1}{2} - 3\frac{3}{5} = 14\frac{9}{10}$
11. $19\frac{2}{5} - 13\frac{5}{7} = 5\frac{24}{35}$
12. $23\frac{1}{4} - 20\frac{2}{7} = 2\frac{27}{28}$
13. $29\frac{3}{4} - 25\frac{2}{3} = 4\frac{1}{12}$
14. $26\frac{1}{3} - 19\frac{2}{5} = 6\frac{14}{15}$
15. $28\frac{3}{8} - 27\frac{2}{3} = \frac{17}{24}$
16. $17\frac{1}{2} - 10\frac{3}{4} = 6\frac{3}{4}$

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SKILL 6 EXERCISE 3

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

1. $8\frac{1}{3} - 2\frac{9}{15} = 5\frac{11}{15}$
2. $9\frac{1}{18} - 5\frac{5}{6} = 3\frac{2}{9}$
3. $3\frac{1}{10} - 1\frac{4}{5} = 1\frac{3}{10}$
4. $5\frac{1}{16} - 4\frac{7}{8} = \frac{3}{16}$
5. $17\frac{1}{3} - 2\frac{1}{2} = 14\frac{5}{6}$
6. $14\frac{3}{8} - 1\frac{1}{2} = 12\frac{7}{8}$
7. $18\frac{2}{5} - 5\frac{8}{15} = 12\frac{13}{15}$
8. $23\frac{1}{10} - 11\frac{4}{5} = 11\frac{3}{10}$
9. $19\frac{1}{2} - 14\frac{11}{12} = 4\frac{7}{12}$
10. $32\frac{7}{16} - 20\frac{3}{4} = 11\frac{11}{16}$
11. $26\frac{1}{4} - 14\frac{7}{8} = 11\frac{3}{8}$
12. $28\frac{7}{12} - 13\frac{5}{6} = 14\frac{3}{4}$
13. $13\frac{7}{15} - 11\frac{4}{5} = 1\frac{2}{3}$
14. $26\frac{4}{15} - 17\frac{5}{9} = 8\frac{32}{45}$
15. $32\frac{5}{9} - 18\frac{6}{8} = 13\frac{29}{36}$
16. $22\frac{3}{10} - 5\frac{11}{30} = 16\frac{14}{15}$

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SKILLS 5–6 REVIEW 2

FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

SKILL 5

1. $\frac{4}{8} - \frac{1}{2} = 0$
2. $\frac{1}{4} - \frac{1}{5} = \frac{1}{20}$
3. $\frac{1}{6} - \frac{1}{8} = \frac{1}{24}$
4. $\frac{5}{8} - \frac{2}{5} = \frac{9}{40}$
5. $\frac{7}{9} - \frac{2}{3} = \frac{1}{9}$
6. $\frac{2}{3} - \frac{3}{7} = \frac{5}{21}$
7. $\frac{9}{10} - \frac{1}{2} = \frac{2}{5}$
8. $\frac{5}{6} - \frac{7}{15} = \frac{11}{30}$
9. $\frac{17}{20} - \frac{7}{15} = \frac{23}{60}$
10. $\frac{5}{7} - \frac{1}{3} = \frac{8}{21}$

SKILL 6

1. $6\frac{1}{3} - 2\frac{2}{9} = 4\frac{1}{9}$
2. $7\frac{1}{2} - 3\frac{3}{4} = 3\frac{3}{4}$
3. $8\frac{1}{2} - 2\frac{2}{3} = 5\frac{5}{6}$
4. $12\frac{3}{8} - 1\frac{1}{2} = 10\frac{7}{8}$
5. $18\frac{2}{5} - 12\frac{3}{4} = 5\frac{13}{20}$
6. $24\frac{7}{8} - 16\frac{4}{5} = 8\frac{3}{40}$
7. $19\frac{3}{10} - 3\frac{4}{5} = 15\frac{1}{2}$
8. $16\frac{1}{3} - 6\frac{7}{18} = 9\frac{17}{18}$
9. $24\frac{1}{15} - 19\frac{5}{6} = 4\frac{7}{30}$
10. $26\frac{1}{4} - 10\frac{1}{2} = 15\frac{3}{4}$

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FRACTIONS ADDITION

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{7} \\ +\frac{1}{7} \\ \hline \frac{2}{7} \end{array}$

2. $\begin{array}{r} \frac{3}{6} \\ +\frac{5}{6} \\ \hline 1\frac{1}{3} \end{array}$

3. $\begin{array}{r} \frac{11}{15} \\ +\frac{7}{15} \\ \hline 1\frac{1}{5} \end{array}$

SKILL 2

1. $\begin{array}{r} 2\frac{1}{7} \\ +2\frac{1}{7} \\ \hline 4\frac{2}{7} \end{array}$

2. $\begin{array}{r} 14\frac{4}{9} \\ +\ 7\frac{3}{9} \\ \hline 21\frac{7}{9} \end{array}$

3. $\begin{array}{r} 12\frac{5}{12} \\ +\ 6\frac{1}{12} \\ \hline 18\frac{1}{2} \end{array}$

SKILL 3

1. $\begin{array}{r} 5\frac{3}{7} \\ +2\frac{4}{7} \\ \hline 8 \end{array}$

2. $\begin{array}{r} 16\frac{3}{8} \\ +12\frac{7}{8} \\ \hline 29\frac{1}{4} \end{array}$

3. $\begin{array}{r} 8\frac{5}{12} \\ +11\frac{11}{12} \\ \hline 20\frac{1}{3} \end{array}$

SKILL 4

1. $\begin{array}{r} \frac{1}{3} \\ +\frac{1}{9} \\ \hline \frac{4}{9} \end{array}$

2. $\begin{array}{r} \frac{4}{7} \\ +\frac{5}{6} \\ \hline 1\frac{17}{42} \end{array}$

3. $\begin{array}{r} \frac{14}{15} \\ +\frac{3}{5} \\ \hline 1\frac{8}{15} \end{array}$

SKILL 5

1. $\begin{array}{r} 3\frac{1}{4} \\ +5\frac{1}{6} \\ \hline 8\frac{5}{12} \end{array}$

2. $\begin{array}{r} 16\frac{5}{8} \\ +14\frac{3}{6} \\ \hline 31\frac{1}{8} \end{array}$

3. $\begin{array}{r} 19\frac{13}{16} \\ +\ 9\frac{3}{4} \\ \hline 28\frac{9}{16} \end{array}$

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FRACTIONS SUBTRACTION

Write each answer in lowest terms.

SKILL 1

1. $\begin{array}{r} \frac{1}{5} \\ -\frac{1}{5} \\ \hline 0 \end{array}$

2. $\begin{array}{r} \frac{12}{15} \\ -\frac{7}{15} \\ \hline \frac{1}{3} \end{array}$

3. $\begin{array}{r} \frac{14}{15} \\ -\frac{12}{15} \\ \hline \frac{2}{15} \end{array}$

SKILL 2

1. $\begin{array}{r} 6\frac{7}{9} \\ -5\frac{2}{9} \\ \hline 1\frac{5}{9} \end{array}$

2. $\begin{array}{r} 9\frac{5}{9} \\ -2\frac{2}{9} \\ \hline 7\frac{1}{3} \end{array}$

3. $\begin{array}{r} 29\frac{13}{16} \\ -19\frac{11}{16} \\ \hline 10\frac{1}{8} \end{array}$

SKILL 3

1. $\begin{array}{r} 7 \\ -\ \frac{6}{7} \\ \hline 6\frac{1}{7} \end{array}$

2. $\begin{array}{r} 13 \\ -\ 3\frac{2}{6} \\ \hline 9\frac{2}{3} \end{array}$

3. $\begin{array}{r} 32 \\ -16\frac{14}{18} \\ \hline 15\frac{2}{9} \end{array}$

SKILL 4

1. $\begin{array}{r} 9\frac{1}{5} \\ -6\frac{3}{5} \\ \hline 2\frac{3}{5} \end{array}$

2. $\begin{array}{r} 37\frac{3}{20} \\ -\ 7\frac{7}{20} \\ \hline 29\frac{4}{5} \end{array}$

3. $\begin{array}{r} 10\frac{11}{20} \\ -\ 9\frac{16}{20} \\ \hline \frac{3}{4} \end{array}$

SKILL 5

1. $\begin{array}{r} \frac{5}{6} \\ -\frac{2}{3} \\ \hline \frac{1}{6} \end{array}$

2. $\begin{array}{r} \frac{6}{7} \\ -\frac{3}{5} \\ \hline \frac{9}{35} \end{array}$

3. $\begin{array}{r} \frac{11}{16} \\ -\frac{8}{32} \\ \hline \frac{7}{16} \end{array}$

SKILL 6

1. $\begin{array}{r} 8\frac{1}{3} \\ -4\frac{5}{9} \\ \hline 3\frac{7}{9} \end{array}$

2. $\begin{array}{r} 28\frac{4}{9} \\ -19\frac{5}{6} \\ \hline 8\frac{11}{18} \end{array}$

3. $\begin{array}{r} 36\frac{5}{12} \\ -18\frac{5}{8} \\ \hline 17\frac{19}{24} \end{array}$

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FRACTIONS ADDITION

Write each answer in lowest terms.

SKILL 1

1. $\frac{1}{8} + \frac{1}{8} = \frac{1}{4}$

2. $\frac{6}{7} + \frac{5}{7} = 1\frac{4}{7}$

3. $\frac{14}{16} + \frac{6}{16} = 1\frac{1}{4}$

SKILL 2

1. $1\frac{1}{4} + 2\frac{1}{4} = 3\frac{1}{2}$

2. $3\frac{5}{9} + 12\frac{1}{9} = 15\frac{2}{3}$

3. $20\frac{5}{18} + 6\frac{3}{18} = 26\frac{4}{9}$

SKILL 3

1. $4\frac{1}{8} + 2\frac{7}{8} = 7$

2. $18\frac{5}{9} + 14\frac{8}{9} = 33\frac{4}{9}$

3. $6\frac{7}{16} + 14\frac{13}{16} = 21\frac{1}{4}$

SKILL 4

1. $\frac{1}{2} + \frac{1}{8} = \frac{5}{8}$

2. $\frac{3}{5} + \frac{2}{3} = 1\frac{4}{15}$

3. $\frac{11}{12} + \frac{3}{4} = 1\frac{2}{3}$

SKILL 5

1. $4\frac{1}{5} + 3\frac{1}{2} = 7\frac{7}{10}$

2. $20\frac{5}{6} + 11\frac{3}{4} = 32\frac{7}{12}$

3. $16\frac{12}{15} + 8\frac{2}{5} = 25\frac{1}{5}$

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FRACTIONS SUBTRACTION

Write each answer in lowest terms.

SKILL 1

1. $\frac{1}{7} - \frac{1}{7} = 0$

2. $\frac{11}{12} - \frac{7}{12} = \frac{1}{3}$

3. $\frac{17}{20} + \frac{13}{20} = \frac{1}{5}$

SKILL 2

1. $8\frac{4}{5} - 3\frac{1}{5} = 5\frac{3}{5}$

2. $10\frac{5}{6} - 3\frac{2}{6} = 7\frac{1}{2}$

3. $47\frac{11}{18} - 26\frac{5}{18} = 21\frac{1}{3}$

SKILL 3

1. $8 - \frac{5}{6} = 7\frac{1}{6}$

2. $24 - 7\frac{3}{9} = 16\frac{2}{3}$

3. $31 - 14\frac{14}{28} = 16\frac{1}{2}$

SKILL 4

1. $7\frac{1}{7} - 3\frac{2}{7} = 3\frac{6}{7}$

2. $43\frac{9}{16} - 6\frac{11}{16} = 36\frac{7}{8}$

3. $10\frac{15}{20} - 9\frac{18}{20} = \frac{17}{20}$

SKILL 5

1. $\frac{5}{8} - \frac{1}{2} = \frac{1}{8}$

2. $\frac{2}{3} - \frac{3}{7} = \frac{5}{21}$

3. $\frac{5}{13} - \frac{3}{26} = \frac{7}{26}$

SKILL 6

1. $9\frac{1}{2} - 4\frac{4}{5} = 4\frac{7}{10}$

2. $24\frac{2}{5} - 13\frac{3}{4} = 10\frac{13}{20}$

3. $42\frac{4}{15} - 14\frac{2}{3} = 27\frac{3}{5}$

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Name _____ STUDENT PROGRESS CHART

FRACTIONS ADDITION

Survey

Skill 1		
1	2	3
10	10	10

Skill 2		
1	2	3
8	8	8

Skill 3		
1	2	3
10	10	10

Review 1
6

Skill 4		
1	2	3
10	10	10

Skill 5		
1	2	3
8	8	8

Review 2
4

Mastery Test
5

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Name _____ STUDENT PROGRESS CHART

FRACTIONS SUBTRACTION

Survey

Skill 1		
1	2	3
10	10	10

Skill 2		
1	2	3
8	8	8

Skill 3		
1	2	3
10	10	10

Skill 4		
1	2	3
10	10	10

Review 1
8

Skill 5		
1	2	3
8	8	8

Skill 6		
1	2	3
8	8	8

Review 2
4

Mastery Test
6

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Instructions for Using the *Computational Skills Program* on Apple® Computers

Machine Requirements

The *Computational Skills Program* (*CSP*) can be used on Apple IIe and Apple IIc computers equipped with a single disk drive and color or monochrome monitor. *CSP Management* requires 80-column capability.

Starting *CSP:*

To start *CSP* on an Apple Computer:

1. Turn on the power switch on the video monitor.

2. Insert the selected *CSP* diskette into disk drive 1.

3. Turn on the Apple computer.

4. The system will read the diskette in the drive and start *CSP.* After a brief pause, you will see the introductory screen for *CSP.*

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9-91462

COMPUTATIONAL SKILLS PROGRAM

Reference Card

Change answer

Accept answer

Continue

Switch sound on/off

Escape

Restart Problem

Get help

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